Of Interest to the Profession

Physicians of Nova Scotia will be interested to know that the Anglo-Canadian Drugs of Oshawa, Ontario, have opened an office and stock warehouse in Halifax. The Nova Scotia office is located in the Roy Building, Suite 137-138, second floor, Halifax, from which premises we will endeavor to serve the Profession. Realizing the necessity for the cutting down in time of delivery of many items used by the profession the Anglo-Canadian Drugs Limited will from now on give physicians of this Province a better delivery on many of their needs. Anglo-Canadian Drugs is an ethical Manufacturing Pharmaceutical organization, Directorate and all Staff Canadians, and made possible by Canadian capital. Detailists and salesmen will visit the Profession in the near future and explain more fully the policy of Anglo-Canadian Drugs. A complete Maritime staff has been engaged to meet requirements of these Provinces understandingly. Complete stocks of Pharmaceuticals, Chemicals and other Medical Sundries will be available to meet demands. An inspection of our facilities will be invited.

ANGLO-CANADIAN DRUGS

R. G. BLAIR, *Maritime Manager*

CONTENTS

The Neo-natal Period

GORDON WISWELL, M.D.

WHEN a mother in labour has had her last agonizing pain, and has produced before us what appears to be a normal infant, free from any apparent deformity and blemish, most of us breathe a sigh of relief, and feel that as far as the baby is concerned our work is done. This is far from true—we have a new life to take care of and a life whose future depends on how well we manage its problems during the first few days and weeks after birth.

As soon as the baby is born, our first duty is to see that it breathes. There are few things more alarming and discouraging than to arrive at this stage and find we are unable to make the baby breathe. Many babies are lost by errors made in carrying out artificial respiration, and the still birth rate is increased efforts along these lines. It must be emphasized that there is no essential difference in the treatment of the blue baby—asphyxia livida—and of the white baby—asphyxia pallida—and two primary factors must never be ignored—the supply of warmth and the great importance of gentleness. Smacking, bending, twirling round by the feet or neck, we now consider to be nothing short of barbaric, and Schultze's method so commonly used a few years ago is a method of the past. Most babies not immediately crying after delivery will respond to efficient clearing out of any obstructive material in the pharynx. A piece of gauze, wrapped around the finger and gently wiped around the mouth and pharynx is sufficient for most cases. If not, suction may be employed by means of a soft rubber or gum elastic catheter, using the mouth or some mechanical suction apparatus. This catheter may be passed into the trachea in more urgent cases, and the obstruction removed quite easily. Forward traction on the tongue also acts as a definite stimulant of respiration, but if these simple measures are not sufficient, a rubber mask is applied to the face, and 5% Carbon dioxide in oxygen is administered. If breathing does not promptly begin, .5 c.c. of Coramine is injected intramuscularly. Coramine is preferred to Lobeline, as there is not so great a danger of a depressed effect following its use. Generalized twitchings and rigidity may also follow the use of Lobeline.

The babies who do not respond to these measures are in a serious state—and often die. Intubation might save some of them but in this type of baby—pale, atonic and moribund—the catheter can be more easily guided into the trachea, obstruction removed, and gas insufflated under pressure into the lungs. The increase of inspiratory pressure starts expiratory movements; and once this movement has been started, one breath by the baby is better than any amount of air introduced artificially. The chief requirement then is an adequate supply of oxygen, and this is invaluable in the hours and even days following a difficult resuscitation. Nowadays, when we are using so many analgesic drugs, as morphin and the barbiturates, we often have difficulty in starting breathing on account of their effect on the baby. These babies are often cyanosed, and appear to be trying to wake up enough to take a breath. If the airway is clear, they usually will gradually breathe,

and it is a mistake to adopt any violent active methods of artificial respiration. A further aid in the reduction of the incidence of asphyxia, particularly in these narcotized babies, as well as in the case of the ordinary baby under stress, is the administration of CO2 in oxygen or plain oxygen to the mother just prior to the birth of the baby. If oxygen is not available removal of the anaesthetic mask and allowing the mother to take a few breaths of ordinary air will have a beneficial effect on the ability of the baby to breathe. Finally, we have various types of mechanical units to fall back on—such as the Drinker apparatus and combined suction and air delivery machines. Obviously these are not convenient or practical enough for ordinary domicilary practice, and we have not yet acquired the courage to call the Fire Brigade every time we have to resuscitate a baby.

The next most important difficulty we have to deal with in the first few days of life is haemorrhage. This may be traumatic in origin or occur spontaneously. Haemorrhagice disease of the newborn is the term applied to the haemorrhages of unknown etiology occurring simultaneously in various parts of the body. Trauma may be operative at the same time, aggravating the condition. Sepsis, syphilis, and prematurity are also factors sometimes in the causation. Intracranial haemorrhage must always be thought of, as it occurs more frequently than we realize, possibly as high as 50% of all births. It may be serious and rapidly fatal, or so mild that we are not aware of its presence. One should always be prepared for umbilical haemorrhage during the first twenty-four hours, and later when the cord has separated. Haematomas of the scalp and muscles require no treatment. Vaginal haemorrhages occur in a mild form and cease usually without treatment. It must be remembered that visible bleeding is often combined with internal bleeding. Bleeding from mucous surfaces, mouth, stomach, bowels, the so-called melaena neonatorum as well as intracranial haemorrhage is treated best by the injection of whole blood—usually supplied by the father, which relieves the parent's anxiety as to its purity, and makes father feel like a hero. It may be given in doses of 10 to 20 c.c. subcutaneously or intramuscularly, and repeated if necessary in twelve to twenty-four hours. Horse serum may be used should human blood not be available. The use of calcium is of doubtful value, as the calcium content of the blood of the new-born is usually high.

The feeding of the new-born baby is always a problem, and a great deal of harm is done, and time wasted, by neglect of some of the most simple irregularities. Breast feeding is of course the ideal, but as there is no way of telling beforehand what the breasts are going to do, we must always be prepared to adopt some form of artificial feeding. The common difficulties of breast nursing for the first few days can be attributed to—(1) too much milk: (2) too little milk or poor quality; (3) the lazy, somnolent type of baby and (4) the active, nervous baby, and a nervous mother. With too much milk, we may have a very full, swollen breast, so full and hard that the baby is unable to retain the nipple in its mouth or to suck vigorously enough to draw the milk. Treatment includes a change in the mother's diet—reduction of fluids—and a mild sedative, and a saline laxative—withdrawal of the milk by hand or electric pump, and the feeding of the milk obtained to the baby by spoon or bottle. Or, we may have a full breast, which the baby nurses well, and as a result gets more milk than it can digest. If scales are available, the amount of milk taken can be measured by weighing the baby before and after nursing. Treatment consists in limiting the time of nursing to the baby's requirements,

which in turn are decided by its behaviour as to sleep, stools, vomiting and crying. In the case of too little milk, the breasts are obviously secreting poorly. This does not mean that they will not do so, and it is important to continue nursing. The number of times a baby sucks before swallowing is a practical method of estimating the amount of milk taken. Apart from actual observation, listening with the stethoscope over the baby's neck tells us when the baby swallows. If he has to draw more than four or five times before swallowing, the supply may be assumed to be inadequate. The baby reacts by being very hungry, crying a great deal, and failure to gain. This problem is solved by giving the baby complemental feedings after each nursing and improving the condition of the mother if possible. There are no drugs that are of any use in increasing the milk secretion. Complete emptying of the breasts, preferably by expression at regular intervals is the important factor in improving the milk supply. A great many babies are sleepy and lazy following birth. These babies cannot nurse satisfactorily, because they do not wake up enough to start the nursing reflex. Treatment of this baby consists in thoroughly rousing it before it is put to the breast. A convenient way to rouse it is to snap the finger against the soles of the feet. After nursing for a few minutes they have to be removed from the breast and thoroughly roused again. This is repeated as often as necessary to ensure its getting a sufficient amount. The opposite type of baby, the crying nervous, hungry one, is probably more common nowadays. The mother is usually of a high strung, nervous disposition also. When brought to the breast, these babies cry continuously, take the breast for a few moments, suck ravenously, drop the nipple and cry again, and repeat the process. The only way to re establish the nursing reflex for these babies is to make them sleepy. Chloral is the best drug to accomplish this, and it is given in 1 gr. doses about ten to fifteen minutes before each nursing. It is then brought to the breast in a semi drowsy state; the nursing reflex is active, and it usually nurses well and long enough to obtain its needs.

Artificial feeding is frequently necessary immediately or soon after birth. A choice may be made of fresh cow's milk, dried powdered milk, or evaporated milk. In artificial feeding, it is important not to attempt to feed the baby up to its needs for the first two or three weeks. If fresh cow's milk is used, it is always boiled. A mixture is then made of 5 oz. of milk and 15 oz. of water, and no sugar is added for a day or two. The baby is offered 3 oz. of this mixture every three hours, seven times a day. He may take any amount he wishes up to 3 oz. His fluid requirements are approximately 3 oz. to the pound, e.g. a seven pound baby requires 21 oz. of fluid per day. After a day or two the milk is increased and the water reduced to make a mixture of one-third milk and two-thirds water. Carbohydrate is added in the form of white sugar, corn syrup or dextri maltose, in the amount of 1 oz. to the twenty-four hour mixture. The formula is gradually changed until at three or four weeks of age, the baby is receiving three to four ounces of a mixture of equal parts of milk and water with an ounce of carbohydrate added. It is then that its caloric needs of forty-five to fifty calories to the pound are satisfied. If evaporated milk is used, and it is being used in increasing amounts all the time, approximately half as much of it is used as of fresh milk, and the formula made up in the same way. When we use dried milk, such as Dryco, we begin with a teaspoon to each ounce of water without sugar, and gradually increase to a strength of one tablespoon to each ounce to satisfy the caloric

needs, estimating one tablespoon as sixteen calories. Unfortunately, babies are not standardized, and although the above mixtures are practicable and may suit the average baby, yet there are many others that require other measures to give a successful result in their feeding. It is also true that a great many babies can be fed their actual caloric requirements by the second or third day without any ill effects or interruption in their progress.

By the fourth or fifth day, the baby should be settling down to a regular routine. Attention to its general hygiene is important. The eyes require ordinary cleansing once a day with boric acid solution. The mouth is better left alone. If thrush develops, and it is quite common, boric acid solution may be used as a cleansing agent, and particular attention paid to the care of the mother's nipples and the bottle nipples. A 1 to 2% aqueous solution of gentian violet is a very satisfactory form of treatment. One or two applications to the affected mucous surfaces of the mouth are usually sufficient to bring about a cure. The cord should be dry and falling off by the sixth day. Its mummification is aided by not using too tight a binder, allowing the entrance of air, and using alcohol and an antiseptic powder as a dressing. If delayed, a silver nitrate stick may be used to cauterize the stump without danger of secondary haemorrhage. Delayed healing tends to polypus formation with a persistence of moisture. These polypi are quite common, and the mother is liable to blame the doctor for not properly tying the cord. A silk ligature may be passed around the neck, and the polypus allowed to drop off in a day or two, or it may be snipped off and the stump cauterized.

In male babies, the foreskin should be inspected for phimosis. It is better not to be too enthusiastic about retracting the skin. It can be overdone, with the formation of scar tissue as a result and aggravation of the condition. Most of the adhesions to the glans are absorbed by natural processes. A gentle and slight stretching and retraction to bring the meatus into view is sufficient. Later a little more can be done, if necessary. If circumcision is considered, the best time to do the operation is toward the end of the second week. A preliminary coagulation time test is imperative. The parents are advised that the operation is not necessary for ordinary functional purposes, but that from a hygienic point of view, general cleanliness for the future, and freedom from complications, it is worth while doing, provided there is no apparent risk. Hernia is not as likely to occur in the circumcised child. The unwashed, never having been clean, will not agree with this point of view, but it is true nevertheless.

The skin of the new-born very often requires careful attention. A great many infants react very easily to irritation and moisture, or have a tendency to dryness and desquamation of the skin. Oil bathing is preferred to water bathing during the first ten days, with particular attention to the buttocks and folds and hollows. Dusting with absorbent powder, as ordinary talcum, may also be used. If the baby is kept too warm, or if an irritating soap or powder is used, or the underclothing is too harsh or woolly, a generalized erythema develops which may be quite disturbing to the infant. Treatment consists in removing the cause, and the use of a non-irritating talcum. The buttocks are also involved quite often, as a result of frequent stools and urination, and neglect in removing soiled diapers. The diet must be regulated as part of the treatment. Removal of the napkin, and exposure of the buttocks to the air or to the artificial light and heat of an ordinary electric light are useful in treatment. A zinc and starch paste may be applied, which is then

covered with waxed paper, with an opening allowing for the passage of the stools, and the napkin folded square and applied by pinning at the sides. Impetigo heads the list of infections of the skin. The bullous type, called pemphigus neonatorum, and due to staphylococcus aureous, is the more common, and is very contagious. In hospital nurseries a prophylactic inunction of white precipitate ointment is given at birth, and repeated on the third or fourth day. Sources of infection include the mother, nurse, doctor, all of whom might be actively infected or be carriers. Clothing may also harbour the organisms. The onset is most commonly on the fourth day, but may occur at any time during the first few weeks. Almost any part of the body may be the site of the first lesion, but points of trauma, such as the lower abdomen and napkin area, the groin or axilla are most commonly first affected. There is no constitutional disturbance in the mild form, but there is a more severe type with a similar onset, in which the bullae spread with greater rapidity, coalesce with extensive exfoliation, leaving large raw surfaces. The constitutional disturbance is marked and death is a common sequel. In the differential diagnosis, syphilitic pemphigua must be ruled out. There are usually other signs of congenital syphilis. Other bullous eruptions, such as those due to drugs, varicella, Duhring's disease, are not common in early life. Cases of doubt can be settled by the examination of the fluid, when the staphylococcus aureus will be found. The treatment falls into three phases: (1) prevention, (2) control of the epidemic and (3) treatment of cases. Prevention depends on infants not being handled by anyone with an infective condition, particularly whitlows and pustular skin conditions, absolute obstetric cleanliness, and rigorous nursing technique. The cases are best treated by frequent cleansing and the use of mild antiseptics. The lesions are pricked with a sterile needle, washed with sterile oil, and dressed with 2% white precipitate or the lesions are pricked and then painted with Tr. Metaphen, or a powder consisting of three parts calomel, two parts talc, and one part zinc oxide, may be dusted over the lesions, and body in general. Recently tannic acid solution has been used as a spray on the affected parts. Treatment is started with a 2% solution and the strength increased to 10%. Ultra violet radiation seems also to be of some benefit and 5% gentian violet in 20% alcohol is another application which may succeed when other treatment seems to fail.

The above includes some of the more common difficulties that the general practitioner has to face in managing the progress of the new-born infant during the first few days and weeks of its life. No attempt has been made to discuss more serious problems such as intracranial haemorrhages, prematurity or gross abnormalities. If the doctor will take a more active interest in the welfare of the new-born baby and not delegate its care and management to the nurse and the neighbours, he will be rewarded by a more grateful mother as his patient.

The Effect of Delivery upon the Nervous System of the Baby.

N. BARRIE COWARD, M.D.

SUCH a title as this may suggest a complete review of both pathologic and physiologic conditions, but such has not been the attempt of this paper. It merely reviews briefly the commoner ones, as it is a well known fact that babies sometimes perish during or shortly after delivery. In many cases babies are seriously injured even if forces used in delivery are well within what are regarded as normal limits. The commonest cause for this untimely ending is usually some injury to the nervous system. The confusing frequency of these cerebral complications occur regardless of the type of labor, and are as often unjustifiably laid at the door of the obstetrician.

The cause of these cerebral injuries are usually considered as being due to trauma, produced by unequal forces on the foetal head during labor.

The foetal structures with which we are concerned are the cranium and spinal column. The cranium consists of (1) the vault and (2) the base. The vault is made up of flexible plates loosely bound together which form an elastic covering for the cerebrum and allows for moulding during labor. The base, however, is small, rigid and fixed. These two chambers are also augmented by two layers of strong tissue; (1), the falx, which divides the cerebral hemispheres; (2) the tentorium, which is attached along the line of junction between the vault and base. The purpose of these are (1) as membranes carrying blood vessels—as really all the large veins are found in one or the other: (2) as strong layers of fibrous tissue which oppose distortion of the head: (3) as means to control intracranial pressure.

The spinal column, on the other hand, is made up of a series of elastic cartiledginous rings held together by relative inelastic and fragile ligaments, the interlocking bony processes being absent in the infant. The importance of spinal cord injuries is most evident in breech deliveries, where, especially when interference is necessary, there is in addition to direct pressure on the foetal head, stretching of the spinal column—a structure usually subjected to compression. The possibility of injury can be appreciated when it is realized that the length of the column can be changed by about two inches either by stretching or compressing the infant between the hands.

Of prime importance in the delivery of any baby is the protection to the medulla, because generally speaking, any severe injury involving the medulla, or the upper segments of the spinal cord, is fatal on account of injury to the respiratory centre or the phrenic nuclei. Situated as it is in the fixed base of the skull, in the main the safety of the medulla appears to depend upon the ability of the falx and of the tentorium to withstand the forces exerted upon them. Any rupture however slight allows the tentorium to descend somewhat and so exposes the medulla to the direct pressure exerted on the head. This may result for example in central irritation of the respiratory centre

with consequent intrauterine breathing movements and asphyxia. In addition, the medulla, and consequently the respiratory centre, may be affected by other conditions, as for example, increase of pressure from above, or reduction of spinal pressure resulting in impaction; anaemia of the medulla produced by pressure locally, or as part of a generalized oedema resulting from prolonged delivery; by drugs, anaesthetics, and so on.

Clinically, we recognize two types of asphyxia, namely, asphyxia livida and asphyxia pallida. In the former, the face is livid blue or red in colour, the muscles are rigid, heart action strong and the cord pulsating. In the latter, the baby is pale, the face pinched, muscles relaxed, heart beat difficult to detect, and the cord almost pulseless—the only point in common is that apnoea is present in both conditions. Asphyxia livida is due to a decreased irritability of the respiratory centre, has a very good prognosis and usually responds quickly to external stimuli. Asphyxia pallida, on the other hand, is due to some direct interference with the medulla or phrenic nuclei, and has a very poor prognosis. Some of these cases may be caused by an intracranial subtentorial haemorrhage producing an asphyxia as mentioned above. The possibility of intracranial lesions occurring during parturition must not be lost sight of.

Respiratory symptoms are present in practically all cases of intracranial injury, but vary. These are most marked in cases of subtentorial haemorrhages. The respiration may be slow and deep, or shallow, at time irregular, often associated with periods of apnoea and with a characteristic whining cry. In some cases there is a musical inspiratory stridor, practically identical with that of laryngospasm in Infantile Tetany, but occurring as a result of the cerebral haemorrhage. Cyanosis is also a frequent accompaniment of cerebral injuries.

No doubt the commonest injury affecting the nervous system of the newborn is intracranial haemorrhage. These, for the most part, are due to injury of the membranes, and so are invariably of venous origin. Arterial haemorrhages are very rare. Some haemorrhages are not due to dural tears, but to small scattered haemorrhages which are produced by pressure during delivery. Intracranial haemorrhages may be divided into four main groups:

(1) Cephalohaematoma Internum—that is, some vessels pass directly through the skull into the dura mater and external traumatism may produce an epidural haematoma. These usually do not have any clinical significance and are found mainly in prematures.

(2) Subarachnoidal Haemorrhages—these are also usually without definite clinical symptoms, although thought by some to be responsible for Jacksonian type of convulsions.

(3) Subdural Haemorrhages—these are the most important of all intracephalic parturitional haemorrhages, and the most important of these are the ones produced by tears of the tentorium.

(4) Brain Haemorrhages—that is, those into the ventricles as well as those into the brain substance itself. These are uncommon and occur for the most part in prematures.

Whereas, trauma is the main cause for these haemorrhages, there are also predisposing causes, such as, syphilis, avitaminosis, and other diseases of the mother, prematurity, haemorrhagic diathesis, constitutional syndromes

peculiar to the newborn, anaesthetics during labor, and manipulations during resussitation.

An infant who has sustained a cerebral injury usually presents a more or less characteristic attitude, but it must not be forgotten that is characteristic for early infancy, that the same lesions may produce different symptoms, and that the same symptoms may come from different lesions. As we mentioned before subtentorial haemorrhages are the most serious and consequently the early recognition of them is important. Generally speaking, then, we may classify the differences in typical symptomatology between subtentorial haemorrhages, or those involving the medulla, pons, and cerebellum in the base of the skull, and supratentorial or hemispheric haemorrhages, that is, those involving the hemispheres in the vault of the skull as follows:

	Supratentorial	Subtentorial
1.	Infant cries a great deal during first few days.	Infant usually very quiet, lanquid, apparently sleeping or is comatosed.
2.	Respiratory centre becomes affected comparatively late.	Respiratory centre is affected early.
3.	The fontenelle becomes tense in very comparatively short time.	The fontenelle at birth is practically normal. Increased tension, if at all, becomes noticeable only later.
4.	Infant is usually pale.	Infant is cyanotic, especially during convulsions.
5.	Prompt appearance of symptoms of intracranial hypertension.	Symptoms of hypertension appear later.
6.	Rigidity of neck and opisthotomos hardly noticed.	Rigidity of neck and opisthotomos usually marked.
7.	Signs of involvement of the cranial nerves at first may be unilateral, the most important being the oculomotor and the facial nerve.	Signs of involvement of the cranial nerves are immediately bilateral.
8.	Convulsions more frequent and usually tonic and clonic in character and appear early.	Convulsions less frequent usually tonic in character and appear later.

Ventricular haemorrhages usually are profuse and quickly cause the baby's death. If not, all the symptoms of intracranial tension appear promptly, convulsions being tonic in type, and trismus is a very characteristic symptom.

In addition to lacerations of the falx and tentorium, or haemorrhagic injuries, there are also non-haemorrhagic injuries which may affect the nervous system.

Contusion of the brain which may produce all the symptoms of intracranial pressure, but these usually quickly disappear.

Oedema of the brain which is often marked below the tentorium and according to Cruickshank there is every reason to believe that this increased bulk and resulting increased tension in such cases might be the immediate cause of the infant's death. He concludes that the oedema and intracranial tension are factors of first importance in the production of a large proportion of neonatal deaths. More recently Shannon has drawn our attention to much the same thing in describing what he calls the frequent existence of a constitutional syndrome during the newborn period, which occurs independently of the obstetric procedure and which is often responsible for the symptoms of cerebral disease. This syndrome is composed of tetany, a tendency to generalized oedema, and oedema of the brain, this latter symptom being the one responsible for many of the symptoms usually attributed to cerebral haemorrhage, and other injuriesjof the brain. From a diagnostic standpoint the most important part of this triad is the tetany, but the cerebral symptoms are the most important, because they are the most grave of all the symptoms of this syndrome. The symptoms of tetany in the newborn as described are practically the same as for tetany in the older infant. The cerebral symptoms are the signs of cerebral pressure, namely, the pulse may be slow, though the slowness may not be constant. Perhaps it is noticeable only when the infant is perfectly quiet, the normal rapidity returning almost immediately when the infant is made to cry or is otherwise disturbed. Respiration is often shallow and irregular. Periods of apnoea may be noted, though not sufficiently long for cyanosis to develop. Typical generalized convulsions may occur. Projectile vomiting may be a feature. Often there is a marked mental depression from which the infant cannot be aroused to nurse. Sometimes these infants when fully aroused will show all the hyperirritability of the tetanic state, until they are permitted to drop back into their state of lethargy. Strabismus, pupillary irregularity and spasmodic downward turning of the eyes is also seen. Excessive perspiration, frequent yawning, cold and cyanotic hands and feet, and delayed and infrequent micturition may also be noticed. These symptoms may be supported by a definitely bulging fontenelle, although more frequently the fontenelle is merely extremely tense.

Injuries to the spinal cord are less common than those of the brain. They are usually less serious unless they involve the phrenic nuclei when death soon follows. This frequently is the cause of death following a protracted breech delivery. Injuries to the spinal cord usually result in paralyses, although the common known Erbs Palsy, or obstetrical paralysis, is due to injury to the brachial plexus, and not to the cervical segment itself. Usually spinal cord injuries result in bilateral findings. Generally speaking then if the spinal cord is injured high up the only clinical symptom usually is apnoea. If the cervical enlargement is injured there is flacid paralysis of the arms and shoulders. If it occurs further down there there is a flacid paralysis some or all of the trunk muscles, and so on. Thus a flacid paralysis is the most common symptom of spinal cord injury, and this is due to the fact that the tracts of fibres making up the white cells are more resistent to injury than the nerve cells—the most important cells in the cord being the motor cells.

The early diagnosis of cerebral injury is important as procrastination at this stage may prove fatal. It is made for the most part on the above symptoms. Further aids may be obtained from the history, from external cranial injuries, from persistent low temperature or erratic changes in temperature,

from delayed coagulation and prolonged bleeding time, with a view to haemorrhagica neanotorum, from changes in the heart action, marked variability in the rate usually meaning distress. Spinal puncture holds little help in diagnosis because the presence or absence of blood in the spinal fluid may occur, both in cases which present symptoms and signs of intracranial injury and those which do not.

The prognosis for intracranial injury should be guarded. Unquestionably a large haemorrhage will soon lead to the infant's death, so the question of prognosis becomes more important in the smaller ones. The outlook depends on the size of the haemorrhage and its location, as there is no doubt that there are many haemorrhages into silent areas of the brain, and tears of the membranes not near enough to the veins to produce a large haemorrhage, both of which may produce signs and symptoms following birth. The question of lasting damage must be considered as an unsettled one. Various authors have reported series of cases of birth injury among whom none showed any noteworthy anomaly of development. On the other hand, other authors have reported cases where many were rendered either completely or partially unfit to make a living, and many were imbecile and obviously idiotic. Then again, there is always the danger of a developing hydrocephalus with its resulting mental and physical changes.

Unfortunately there is little we can do in the way of treatment. In all cases of known or suspected intracranial injury the infant should be handled very carefully and as little as possible. He should not be allowed to nurse at the breast, but the expressed mother's milk given him by Breck feeder, or pipette. He must be kept warm though an ice-bag on the top of his head is helpful. Twenty to thirty c.c's. of whole blood should be given intramuscularly as soon as possible. It is not necessary to type this blood though it is better to take it from the father if possible. Chloral-hydrate and bromides must be given in sufficiently large dosages to control any convulsions, twitchings, or spasticity.

Calcium is the specific for the disease complex as described by Shannon. It is safest given in the form of a ten per cent solution of calcium gluconate intramuscularly, aided by calcium gluconate by mouth. Calcium chloride will act very much quicker, but it is too irritating to use except directly into a vein, but never the longitudinal sinus. It also frequently causes vomiting when given by mouth. Viosterol should also be given.

Respiratory inefficiency may be stimulated by the use of such drugs as Lobeline, Coramine, and so on. However, where possible the use of combined oxygen and five per cent carbon dioxide inhalations, after the manner of Henderson, is very valuable, as this relieves the anoxaemia and still prevents the excessive loss of carbon dioxide, the natural stimulant of the respiratory centre.

The Acute Ear in Children

ARTHUR E. DOULL.

NATURALLY in an institution the size of the Children's Hospital, we see many acute ears.

The acute ear may present itself in one of two forms, namely an acute catarrhal otitis media, abbreviated O.M.C.A. or the acute purulent otitis media, abbreviated O.M.P.A., but both are caused by an extension of an inflammatory process from the naso-pharynx or other part of the upper respiratory tract by way of the Eustachian tube. It is important to bear this in mind because of the fact, that either during an attack of O.M.A., or following its subsidence, attention must be given to these parts. It is not always sufficient that the ear be treated alone, but it must be recognized as part of a more widespread infection.

A paper such as this does not call for a detailed explanation of the etiology, anatomy and pathology of the parts, but is written as a plea for careful attention to all ear aches, because of the suffering which is acute, the possibility of serious complications and also the possibility of the loss of hearing which may result if the cases are overlooked or neglected. It is gratifying to notice that the ears have received far more attention by the general practitioner in recent years than was formerly the case. Nevertheless, as regards anatomy, it is important that we should bear in mind the fact, that the mucous membrane of the middle ear and mastoid cells, is in direct communication with, that of the upper respiratory tract by way, again, of the Eustachian tube, which is also lined by this same mucosa. So, it is easily understood, then why the ear and mastoids may become infected by direct communication in the presence of the common cold, influenza and the exanthemata etc. The exciting cause of all acute ears, is one or more of the virulent microorganisms.

Pain is the chief symptom of both forms of the acute ears and the onset is usually quite sudden, more severe in the purulent type, and is unremitting in character, when once established. Marked constitutional disturbances are present and the temperature ranges from 102 to 105. There is some deafness and tinnitus, but these last two cannot be demonstrated in infants and in the older children, pain will overshadow all else. It must be borne in mind, that in some cases, there will be no pain. The purulent form may be ushered in with convulsions and vomiting. The O.M.C.A. may subside without discharge, but there is always a rupture of the drum membrane in the O.M.P.A. with discharge, which is serous in character at first, changing soon to purulent. The latter is the type in which complications may arise at any time, and therefore, all patients should be watched very carefully. Tenderness over the mastoid may be present in both forms of the acute ears and this is readily accounted for by thinking of the anatomy of the mucosa. But tenderness alone is not sufficient cause for opening the mastoid in the early stages. I would like to stress this point.

Careful inspection of the drum membrane must be carried out at frequent intervals; therefore it is necessary that one should have a familiar knowledge of the appearance of a normal drum; then, any deviation from the normal, will have great significance. What we see in the acute ear, is first, marked congestion, which may be followed by bulging of the membrane with the obliteration of the well known land marks. The latter signifies the presence of fluid in the middle ear. If discharge is found in the external auditory canal, it is logical to suppose that there has been a rupture of the membrane.

The treatment must have at least two important aims in view, first, the relief of pain and the general care of the patient; second, the carrying out of such measures that will insure the thorough restoration of the normal function of the ear.

Naturally, the child will be confined to bed until the temperature has fallen to normal. A mild cathartic is given at the outset and everything done to make the child comfortable and support its strength. Liquid diet is proper until the temperature has dropped to 100.

Anodynes must be administered to relieve the severe pain. In infants it is found that Tinct. Camph. Co., is the best; the dose being half a minim for each month of the baby's age, this to be repeated hourly until the patient has relief. In the second year this treatment may well be recommended, but with some modification of the dosage. There is on the market a tablet, similar to the popular aspirin compound, but in just one quarter of the strength. This is very useful and may be given older children, i.e. say those over eighteen months, as often as one every three hours until relieved. Heat applied in one form or another, is very beneficial and should always be used. The hot water douche seems to give as good results as any other form and is usually easily arranged. The two quart fountain syringe is utilized. It is filled with water, the temperature of which should be 108 to 110, sterile if possible, but not absolutely necessary. This is the highest limit which can be tolerated, but it is this temperature which gives the best relief. The bag is suspended one foot above the patient's head, no higher, as the increased pressure may cause added pain; the stream allowed to flow gently through the smallest nozzle, in to the drum. This procedure may be repeated hourly, and some receptacle placed on the floor to catch the water, along with the necessary precautions to protect the child from a wetting. Thorough drying of the canal after each douching, is most important. Then the child's head may lie on the hot water bottle during the intervals. Some use the therapeutic lamp and when this available, is very soothing.

The urine should be examined and if acetone is present, it should be combatted with glucose, vegetable broths and alkalies.

As before stated, the drum should be frequently inspected and a paracentesis performed only when there is bulging of the membrane with the associated obliteration of the landmarks. The ear abscess calls for incision and drainage the same as abscesses elsewhere. An anaesthetic must always be administered, because this simple operation is one of the most acutely painful. Ethyl Chloride is excellent in children. General anaesthetics, no matter how slight, are better avoided, because of the prostration due to the inflammatory process in the upper respiratory tract. A very useful local anaesthetic is one prepared by mixing equal parts of cocaine, menthol and carbolic acid. The resultant mixture is of a syrupy consistence. The method of application is either by allowing a few drops to run in the canal to the drum, or by saturating a piece of

absorbent cotton with the mixture and placing it in direct contact with the membrane. If the former is used, it can be done by means of an eye dropper and the child placed with the affected ear uppermost. In either method, one half hour must elapse before the operation is performed, as it requires this much time for the anaesthetic to work. At the end of this period, the drum should be of a dull white colour and unless this is so, the operation will be painful; but if it is good and white, there will be little or no pain. Personally, I prefer the use of the pledget of cotton; I believe it is more effective. A free incision is now made through the bulging portion of the drum, this is usually the posterior half. Use the proper paracentesis knife and start your incision at the bottom and carry it in a slightly circular course, upwards to the upper limit and at no greater depth than 1/16 of an inch. Do not make the mistake of incising the canal wall, for obvious reasons; and remember that it might be possible to enter the jugular bulb in an infant as it lies near the floor of the middle ear. Cleanse the canal before operating with alcohol on swabs: and afterwards, be sure and wipe away all blood clots, for if these are left, they may render the operation useless by retarding the flow of pus.

Pain may not depart immediately. See to it that drainage and cleanliness are carried out. This may be accomplished by frequent douching with normal saline solution or solutions of bicarbonate of soda, one teaspoonful to the pint every two hours in the manner before described. The canal is dried after each washing, otherwise moisture remaining, may bring about the maceration of the skin of the canal wall and so allow infection of this part. Should the hot douching cause dizziness, it should not cause alarm, as it is merely the action of heat on the semi-circular canals and will soon pass away. Boric acid solutions have no advantage over the saline and soda solutions; in fact, they may be harmful, as there is a possibility of crystalization with consequent blocking of the opening in the drum.

A second or third paracentesis may be necessary if the pain, fever and bulging do not subside.

The discharge may last from several days to several weeks, but if too prolonged, the hearing is more apt to become impaired and then there are greater possibilities of mastoid suppuration and intracranial complications.

The diagnosis is made by a careful inspection of the drum. We take note of the congestion and the bulging with its associated obliteration of the land marks. The difference between the two forms of acute ears, is one of the degree of the severity of the symptoms; the purulent will have the drum appearances already described, while there is usually a dulness associated with some congestion in the catarrhal type. A decayed molar may be cause of earache. There is no acute otitis media present when the ear is normal in appearance.

Acute ears should have a good prognosis in most cases, especially under favourable conditions, proper treatment, in those whose health is sound, and when they are seen early. The most severe forms are those associated with influenza and scarlet fever: but we must be ever on the alert for the early signs of mastoidits, meningitis and sinus thrombosis.

There is something to be said for prophylaxis. Careful and vigorous treatment of all inflammatory conditions in the nose and throat will help to a large extent in warding off many acute ears. Rest, the use of some medicated steam vapours, the avoidance of the improper manner in blowing the nose and the application of one of the oily preparations containing either

adrenalin, ephedrine or metaphedrine in mild solutions, will all aid in keeping the inflammatory processes under better control. The removal of tonsils is advocated where the discharge is continuing for too long a time, say from four to six weeks, but under no circumstance should the operation be performed during the acute early stage of the acute ear. It is also wise to remove them in those children who are subject to colds and who may have had a history of ear ache or deafness with their colds, when the tonsils and adenoids are definitely proven hypertrophied or diseased.

In closing, I wish to make a remark about the controversy as to whether one should wash an ear or whether merely drying is the better method. Generally speaking the answer is, where there is profuse discharge, wash: where there is scanty discharge, dry. The wet methods have their disadvantages, of course, one or more have already been referred to. The dry method is excellent, but it can only be carried out by those who are well trained to do so. Both methods are used in the Children's Hospital here, as we have those who are capable of carrying out either treatment.

And one thing more, may I state, that no examination of a child who is running a temperature, is complete without careful inspection of the ears.

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A Resume of Diseases Presenting an "Inflamed Eye"

R. H. STODDARD, M.D.

This inflamed eye requires the examiner to distinguish whether the inflamation is:

(1) of the conjunctiva, cornea, or sclera.
(2) of the uveal tract (Iritis, or irido-cyclitis.)
(3) of glaucoma.

Conjunctivitis:

The conjunctiva is often involved in the cutaneous diseases of the lids and from its direct communication with the mucous membrane of the nose via the lacrymal duct, it is inflamed in morbid conditions of the nose, throat and teeth.

From external sources it is liable to injury and infection in many different ways; light, heat, fumes, foreign materials infections and allergy.

On account of its source of blood supply the conjunctiva is involved to a certain extent in inflamations of the cornea, iris, and ciliary body. Hence, we have a certain amount of interlocking of the inflamations of these parts. It is necessary to distinguish the hyperaemia of conjunctivitis from that which occurs in keratitis, or some deep seated ocular disease as iritis and irido-cyclitis. The former is called "Conjunctival injection", the latter is called "Ciliary injection". The conjunctival inflamation starts posteriorly and is of a brick red color, while the ciliary injection of iritis starts about the corneoscleral junction and works back. It is of a pink lilac color. In severe inflamations of the anterior ocular segments the two types are associated as would be expected from the numerous anastamoses between the posterior conjunctival and anterior ciliary vessels.

The main types of conjunctivitis are: Catarrhal, Purulent, Membranous, Granular, Phlyctenular.

The Catarrhal is that type caused by some of the external causes as enumerated above. The pneumococcus type IV causes many infections; the Kockweeks is the organism of "pink eye"; the Morax Axenfeld Diplococcus occurs infrequently. Allergic reactions requires some comment, for we consider this to be the cause of many cases of conjunctivitis. Phlyctenular, follicular and vernal catarrh are of prime importance in this category. The coincidence between vernal catarrh and hay-fever is marked, in both we have a large number of Eosinophiles in the conjunctival secretions. A patient may be afflicted with conjunctivitis, coryza, asthma, and hay-fever with no two conditions co-existent but each occuring in succession. A tuberculous anaphylactic reaction must also be considered in vernal conjunctivitis.

Follicular conjunctivitis, vernal catarrh, and tracoma somewhat resemble each other in the appearance of the conjunctiva.

In the early stages the difference between tracoma and follicular conjunctivitis is very little. The little "sago" elevations are about the same in size, but in tracoma we have these small elevations on the outer angle of the upper lid just above the tarsal cartilage also. In vernal catarrh the elevations are very large.

Purulent conjunctivitis is that of gonorrhoeal or ophthalmia-neonatorum and does not require any comment.

The main symptoms of conjunctivitis are; hyperaemia, abnormal secretions, photophobia, lacrymation and itching of the lid. The most noticeable of these changes in a case of slight inflamation is the increase of vascularity.

Keratitis.

Here we have inflamations involving the cornea. They show themselves as ulcers on or deposits in the substance of the cornea. We have the ciliary injection here together with all the other symptoms of an eye irritation. I shall not describe the different types of keratitis.

Episcleritis and Scleritis.

Episcleritis is a localized inflamation which produces an exudate into the episcleral tissues. The exudate causes a protuberance, round or flat and situated a few millimeters from the corneo-scleral junction. Two kinds of redness are visible, a superficial hyperaemia of the conjunctival vessels and a violet colored injection from the episcleral vessels. The eye is red only in the area of the nodule, and is acutely sensitive to the touch. Photophobia and lacrymation are present. Its course may be acute or chronic and a feature of the disease is its tendency to recur. It is usually caused by some point of focal infection of the teeth, tonsils, sinuses, or nasopharynx. It is commoner in the young and in women.

Episcleritis has to be differentiated from phlyctenular conjunctivitis and ordinary catarrahal conjunctivitis. In phlyctenular conjunctivitis there is a white denuded centre which is not found in episcleritis and the protuberance is at or near the limbus, more on the corneal side. In conjunctivitis, adrenaline dropped in the eye produces anaemia, but in episcleritis there is a hyperaemic spot at the center of the nodule.

Scleritis presents similar symptoms, but the surrounding parts are bluish red. It is a rare disease, accompanies the inflamations of the eye such as iritis, orbital cellulitis and pan-ophthalmitis. Due to a thinning of the sclera the disease is sometimes very disastrous to sight.

Treatment of Episcleritis and Scleritis. Midriatics, Diaphoretics, Salicylates, Mercury, Tonics and Specific treatment as indicated.

Iritis and Irido cyclitis.

These two diseases in a way may be considered together as they have many similar symptoms, have the same blood supply, and are usually involved in inflamations simultaneously.

Iritis May be classified as Acute or Chronic, Primary or Secondary, Simple or complicated, Idiopathic, and traumatic.

Iritis is a subject of greatest importance to the practitioner. Early recognition of the disease and early treatment will give satisfactory results. Unfortunately however mistakes are easily made in the diagnosis of iritis and glaucoma and the patient suffers.

The common symptoms of nearly all types of iritis are: (1) Pain referred to the eye, temple or brow, worse at night. (2) Photophobia. (3) Lacrymation. (4) Corneo-scleral injection. (5) Sluggish contracted pupil. (6) Iris and anterior chamber steamy. (7) Adhesions. (8) Eye tender to pressure.

There is a gritty feel to the eye two to three days before the inflamation is noticed. This irritation is due to dilated blood vessels.

Causes of Iritis.

Trauma, Syphilis, Anaemia, Diabetes, Gonorrhoea, Gout, Acute Febrile diseases, carries of the teeth, tonsils, sinuses, Dysentery, and other intestinal intoxications.

The varieties of iritis; (1) Serous. (2) Plastic. (3) Parenchymatous.

Serous iritis, is the type accompanying syphilis and sympathetic ophthalmia. The anterior chamber is deep and full of deposits also there are deposits on the posterior surface of the cornea. The subjective symptoms may be slight, pupils are dilated, tension may be increased simulating a glaucoma. Sympathetic ophthalmia has a grave outlook as to sight.

Plastic iritis, is the most frequent type. It has a tendency to form adhesions between the iris and lens, and posterior cornea. Often it occludes the pupil completely causing what we call an iris-bombe, and later glaucoma. It presents all the symptoms of irridal inflamation, Syphilis and focal infections are the two main causes of this type.

Parenchymatous iritis is divided into suppurative, gummatous, and tubercular.

The suppurative type shows pus about the iris, and pus in the anterior chamber. Diabetes, acute infections, infective eye wounds, and ulcers, influenza, and cerebro spinal fever are his chief causes. The gummatous type appears in secondary syphilis and shows as yellowish brown spots on the iris near the outer or inner border. The tubercular type is always secondary and found in young people. It presents a gray yellowish red, semo-transparent, nodule near the anterior surface of the iris. It is often bilateral and the eye is generally lost.

Treatment of all types of Iritis:

(1) Forced dilation of the pupil.
(2) Cleansing of intestinal tract.
(3) Removal of points of focal infection.
(4) Salicylates; Mercury; Iodides.
(5) Specific.
(6) Symptomatic.

The differential diagnosis between iritis and conjunctivitis: Iritis: No discharge. Redness at the limbus, and deeper in color, the iris is contracted, sluggish and steamy. The aqueous is turbid and tension may be slightly increased. *Conjunctivitis*: A discharge is present, redness is posterior and more superficial, the iris is of normal color, aqueous is clear and the tension not increased.

Iritis and Irido-cyclitis: While the pathologic study shows involvment of the ciliary body in nearly all cases of clinically diagnosed iritis it is customary to speak of the condition as cyclitis or irido-cyclitis when certain symptoms are present. These are (1) Oedema of the upper lid. (2) Alteration in tension. (3) Great pain and tenderness when pressure is made over the ciliary area. (4) Deposits on Descemets membrane. (5) Greater loss of vision than can be accounted for by the turbidity of the aqueous. (6) Deposits in the vitreous.

Glaucoma.

This is an important and fairly common disease of the eye. We have the inflamatory and non-inflamatory types. These may be primary or secondary, acute or chronic.

A rapid increase in pressure gives the inflamatory type. This has three stages, (1) prodromal. (2) Active glaucoma. (3) Absolute glaucoma, and stage of degeneration.

The Prodromal stage is most important, there is some dimunition of vision, cornea is cloudy, and slight pain in the eye and the head, the pupil is dilated and sluggish, anterior chambers shallow and there is circumcorneal injection. This stage may pass off and not return for months. Its return may make the eye pass into the active state of glaucoma. Here we have rapid failure of sight, severe pain in the eye, conjunctiva injected and chemotic, cornea cloudy, pupil widely dilated and the vitreous full of opacities.

The first two stages may be easily mistaken for iritis unless a fundus examination has been made and the tension taken. Atropine used during these stages would have disastrous results. Now this stage may subside without treatment and the eye pass into the glaucomatous stage with rapid loss of vision, excavation of the optic nerve and complete loss of sight. After a time this eye degenerates and gets very soft and shrunken.

A chronic glaucoma is more common, has similar symptoms of acute, but less severe. It has the recurring attacks and the final outcome is about the same as the acute.

In chronic non-inflamatory glaucoma there is absence of any marked external signs, pain and inflamation are absent. The disease is generally discovered by examination for loss of vision. The fundus gives the usual signs of glaucoma.

Differential diagnosis.

Glaucoma)	**Iritis**)
Pupil dilated.	Pupil small.
Tension increased.	Slightly increased or normal.
Shallow anterior chamner.	Normal chamber.
Steamy cornea, anaesthetic.	Sensitive and transparent.
Ciliary injection.	Ciliary injection.
Chemosis, upper lid.	No chemosis.
Severe pain.	Moderate pain.
Great dimness of vision.	Slight dimness of vision.
Excavation optic nerve hand.	No excavation.

Common Eye Conditions

A. Ernest Doull Jr.

THE following is a brief outline of two eye disturbances which are found quite frequently in children. The first one is very common while the latter is seen but occasionally, due to improved prophylaxis.

Phlyctenular Conjunctivitis.

This condition is found quite frequently in debilitated children and in those who suffer from tuberculosis. Improper diet and refractive errors may enter into the causation. Poor hygienic conditions contribute to this disease. Other conditions that enter as contributory agents and that call for attention are tonsils, adenoids, blepharitis, poor teeth, otitis media and colds. Found usually in the lower classes it may occur in the better classes in a child of apparently good health.

The phlyctenules appear on the conjunctiva or may invade the cornea at the limbus, or it may appear on the cornea where it is called phlyctenular keratitis.

The phlyctenules appear as an infiltration of the subepithelial layers of the conjunctiva or cornea with invasion of the epithelial covering with leucocytes. This forms a raised nodule which may break down and form an ulcer. If the ulceration is deep a scar is formed. On inspection, in a simple case, there is a raised red nodule with an abundance of blood vessels. These vessels run to the nodule, the rest of the conjunctiva appears nearly normal. A mild conjunctivitis may be present with slight injection of the rest of the conjunctiva. When the phlyctenule breaks down there is a greyish-white appearance to the centre of it. There may be one or several phlyctenules present at the same time.

When the phlyctenules come on the cornea they have the same appearance as described above. The blood vessels can run over the cornea to the ulcer. The ulcer is usually superficial and heals without leaving any scar. If the deeper layers of the cornea are involved a scar remains which causes some defect in vision.

There is considerable lacrymation and excoriation at the outer canthus due to this watering. There is not a great deal of discharge in these cases.

Photophobia is present in these cases and in some we get blepharospasm. This is more common when the cornea is involved. There is not a great deal of pain.

General treatment consists in a nourishing diet and good hygienic conditions. Cod liver oil should be given as well as an iron tonic. Plenty of fresh air and the eyes protected from bright light by means of coloured glasses. The nose and throat should have proper attention as well as the teeth.

For the eye a one percent Yellow Oxide of Mercury ointment is used two or three times a day. Hot boracic compresses are applied. When there is

much irritation present Neo Silvol five percent ointment is used instead of Yellow Oxide. The latter increases the irritation at times.

When the cornea is involved one drop of one percent Atropine solution is used in the eye three times a day. In using this it is as well to press the inner angle of the eye to prevent the atropine going down the tear sac to the nose. In corneal ulcers a ten percent solution of Dionin instilled every second day hastens the healing. If photophobia is marked a drop of two percent Holocaine solution is instilled several times a day to give relief. Cauterization of the corneal ulcer by Trichloracetic Acid in the bad cases helps in the healing of these ulcers. The fissure at the outer canthus is touched once a day with a two percent Silver Nitrate solution.

The outlook for this condition is favourable. When the corneal ulcers are deep and central over the pupil we get an opacity that causes some impairment of vision.

Ophthalmia Neonatorum.

There have been several cases of this infection admitted to the Children's Hospital during the last few years. In spite of all precautions this condition is bound to appear occasionally. It is characterized by profuse purulent discharge with considerable swelling of the lids.

The following line of treatment has been carried out and our results have been good. If the child has the infection in one eye he is kept lying on the affected side and the other eye kept well protected to avoid infection if possible. If the affected eye is swollen cold compresses are applied until the swelling has abated.

The most important part of the treatment is a nurse in attendance day and night. She must have no other duty than that to the patient she is nursing. The eye or eyes must be kept clean. It is found necessary to swab the eye and cleanse it with boracic solution as often as every fifteen minutes. The cornea is inspected frequently and any sign of injury or ulceration calls for atropine at once to get the pupil dilated. A half or one percent solution is used.

An aqueous two percent solution of Mercurochrome is instilled in the affected eye or eyes twice a day. The lids are kept covered with vaseline to prevent them from sticking and to prevent fissures, especially at the outer canthus.

When the swelling of the lids subsides and the discharge lessens we discontinue the Mercurochrome and paint the lids, the conjunctival surface, with a two percent Silver Nitrate solution once a day.

Great care must be taken in handling these cases not to injure the cornea in any of the manipulations. Injuries of the cornea that don't respond to treatment, and a great many don't, lead to loss of vision and often loss of the eye.

Changing Surgical Methods in Children's Diseases

P. WEATHERBE

Plaster of Paris.

MODERN Technique. Plaster shells are moulded to the skin without padding, by the use of "plaster cream". This is made by mixing plaster with water, of the right consistency for spreading onto a layer of gauze. Over this are spread pieces of stiff gauze crinoline cut according to requirements, and the cream spread as each piece is laid on, moulding it to the part as required. Eight to twelve layers makes a strong enough shell for most cases. By making the shell in two sections, and not using a circular bandage, the objections of the non-padded method, which can be a real danger to the circulation are avoided. The shell method is free from danger, inexpensive, easily applied, and the splint is an accurate fit.

Surgical Tuberculosis of Bone.

The conservative, non-operative treatment of tuberculosis is the method of choice. The French and British surgeons have recently published their results, after a thorough trial, of all operative fusion methods such as Hibb's. They found them wanting, and have reverted to non-operative surgery with greater attention to detail in treatment, with improved and better results.

Compound Fractures.

One hundred per cent cure is now available by modern methods. The secret of success is in leaving the wound open, making it larger and opening up all undermined parts freely. If necessary, at the same time stabilize the fragments with wire or plates. They are often necessary along with extension by Kirschner's wire and Steinmann pin (direct skeletal traction) or adhesive, and the use as well, of a Thomas or Jones splint. The essential part of the treatment consists of continuous drainage, by whatever method most simple to carry out. Winnett Orr believs in draining the wound by keeping it bathed continuously with pus, by his method of surrounding the wound with a cast of plaster of paris without changing for weeks. A more cleanly and pleasant method is with either a running stream of saline or, more simple still, the application of a saturated solution of Boric acid kept moist by an efficient rubber covering. This may be left without changing for days or a week, and should be still wet on removal, or the technique is faulty. For twenty-five years I have found that this method has never failed.

Burns.

The application of 5% tannic acid (must be a freshly prepared aqueous solution) to any burnt surface, as often as necessary, until a hard brown scab has formed, is all that is necessary, without any preliminary treatment of the burnt surface. It reduces the mortality from about 50% to 10%. After

only one tannic acid application, a 10% silver nitrate solution will immediately form a tanned crust and shorten the time of treatment from hours to minutes.

Cleft Palate.

Victor Veau of Paris, by devising an operation which eliminates the dead space between the mucoperiosteum and bone, has definitely improved the results of operation for this defect, and his method, after an extensive trial, is the method of choice the world over. The operation is done about one year of age by preference.

The Abdomen.

Rammstedts' name is associated with the revolutionary treatment of congenital pyloric stenosis. The operation, performed when the diagnosis has been confirmed, is a simple splitting of the serous and muscular coats of the pyloric hypertrophy. Modifications of the original operation increase the risk and are not as satisfactory.

Intussusception.

The early diagnosis of intussusception by noting the outstanding symptom of bloody mucus from the rectum without fecal matter has brought cases to operation without delay with the result of a greatly lowered mortality rate.

Appendicitis.

The profession are indebted to Wilkie for the incessant manner in which he has advocated the recognition of the obstructive type of appendicitis. By such recognition the mortality rate can be lowered in proportion to that recognition.

The Two Stage Operation in acute appendicitis will in very many cases save life, and in others, lessen the risks of complications. It is a case of surgical judgment, when this should be done most commonly in cases of three days standing, and again later when abscess formation has occurred near the rectum or in other regions. The appendix is always removed at a later date as soon as the symptoms have subsided or the wound healed. This is usually about three weeks after the first operation.

Acidosis.

Glucose is our sheet anchor in the prevention and treatment of this sometimes very serious condition, following operation. Given by mouth, rectum, into tissues, and most effectively into a vein, it will bring the case from the brink of the grave. It should be given to all operative cases before and after the operation for a variable period.

Osteomyelitis and Empyema.

They are both abscesses, and should be dealt with as such according to the pathology and the anatomy of the part. Early recognition spells success, and in both, the clinical history is our guide as to onset and pathology and X-ray is valuable. The treatment is drainage, which must be efficient and sufficiently prolonged. Except in children below one year the open method of drainage for empyema is satisfactory. Chloroform anaesthesia, if given freely mixed with air and not in a concentrated form surpasses all other forms in children, in spite of all writings to the contrary, as only a few whiffs are usually necessary.

Hernia.

A circumcision will cure all umbilical herniae. A closure of the patent funicular sac will cure all congenital inguinal herniae and is the operation of choice, as soon after three months of age as possible. None can be cured by truss after six months and the cures possible by truss after three months are so few as to be negligible.

Poliomyelitis.

Rest without retentive apparatus in the acute stage of this disease lessens its severity. Any active disturbance of inflamed nerve cells in the cord, by touching the muscles controlled by them, will only further damage them and delay or prevent resolution of the inflammation.

Massage, rather than retentive apparatus, (electricity in any form is harmful) is the method which gives the best results, when the acute stage is over, a period of usually six weeks.

Nutritional and Specific Diseases.

The surgery of conditions resulting from the above conditions such as Rickets and Syphilis, are now seldom seen, because of the early recognition of both and their treatment by proper hygiene, vitamines and drugs. Congenital syphilis is a frequent problem in diagnosis. It can be best cleared up by the "Therapeutic Test", as the blood test in such cases has been found unreliable. Mercury, by inunction along with Grey Powder in adequate doses, will always settle the question one way or the other.

Wound Treatment.

Simplicity is the key note. Avoid further damage by antiseptics. The living tissue is our best antiseptic, and the wound problem is a mechanical one, as germs take the line of least resistance, as pus does. This was proved by the experience in The World War. Simple efficient and continuous drainage results in cure and surpasses all other methods as proved in practice and by statistics. One hundred per cent of cures may be obtained in all fresh wounds by the drainage method alone, which no other method will give.

A LUDICROUS INCIDENT.

"The following ludicrous incident occured lately in one of our county towns not a hundred miles from Halifax; an infant only a few months old was seized with a violent inflammatory disorder. The doctor was sent for, who after feeling the child's pulse and looking very wise, according to long established usage, with all due solemnity prescribed a blister and directed that in case it should not prove effectual in a certain time it must be taken off and well scratched up with a fork. The next day the doctor called to see the child and to his surprise found the mother in a very hostile state of mind towards him. Upon inquiring the cause she told him that she had obeyed his directions exactly, for she had taken off the blister and scraped with a fork with all her might, but the poor little 'cretur' screamed awfully the whole time, and that it had not done the child a bit of good for she was almost dead with the pain: catch her sending for him again! Not she, if there wasn't another doctor in the Province!"

"Gentle Reader, she had scraped the baby."—(*From the Acadian Recorder*, 1847).

The Nova Scotia Medical Bulletin

Official Organ of The Medical Society of Nova Scotia.

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VOL. XV. MARCH 1936 No. 3

THE PRESIDENT SPEAKS.

SOCIETY is at present in a state of flux, and whether it will crystallize into "Utopia", the future will determine. Many new schemes are being broadcasted—some wise, some otherwise, each proclaiming to bring in a new and better order. Among these plans, the ones that will have the most direct bearing on the status of the medical profession are socialization of medicine, or State Medicine and National Health Insurance. We can expect some action on these in the very near future, and the future position of the Doctor will depend to a large degree on how much he will be consulted in the formation of this legislation.

Exploiting the medical profession has always been a popular pastime. The average politician has for his main ambition to return to power, so will support anything that will win him votes. As the number of Doctors in any constituency is very small, exploitation would not hurt his conscience, so long as it was pleasing to the populace.

A short time ago, the Trustees of the Aberdeen Hospital, New Glasgow, offered to the public a contract where by the payment of seventy-five cents per month, they were guaranteed free hospilitation, and *free medical service.* The medical staff was not consulted, and when they individually and collectively very vigorously remonstrated, no change was made in the contract, and it was still sold although the publicity was greatly lessened. The Trustees are business men and personal friends, yet for the sake of securing funds for their institution they did not hesitate to place the Doctors in a very embarrassing position and also very materially lessen their incomes. If one's friends are so inconsiderate of one's profession, what can be expected from an impersonal parliament?

It is on this account that an effort is being made to have the entire medical profession of Canada united—from coast to coast. The provincial associations are asked to amalgamate with the Dominion Medical Association as provincial divisions, so that when legislation is being drafted the Dominion officers can safeguard our interests and be able to point out that they are the representatives of the entire medical profession of Canada. Their position will thereby be vastly strengthened and enhanced.

held in the same esteem, or lack of it, in this connection. So no man has persevered in the psychiatric field, he has rather become a good surgeon or medical man. It is in our memory that one man prepared himself in the field of public health, obtained his degree, but was denied the appointment which was promised him.

It has also been maintained, and with much merit, that the Province should take the initiative in training one of our graduates with a view to appointing him to this position. It must, in all fairness, be admitted that the proportion of our graduates who are interested in psychiatry is very small; but even if we were to censure the powers that be or that have been for this failure, that does not mend the present situation. It would take several years to train a man and the problem calls for immediate solution.

So far as we know the Government has made no pronouncement on the matter. It is possible that the delay in making the appointment is occasioned by difficulty in finding a *suitable* local man. It is clear that if he is not to be found the choice must be made between an unsuitable local one who will perpetuate the state of affairs of which we complain, and a man from some Canadian, English or American psychiatric centre with qualifications necessary to raise this matter to its proper status.

It would appear to us that if such a choice confronts the Government at the moment there can be only one result, for the day of politics and provincialism must go as far as social medicine is concerned; and should the Government find it necessary to appoint an outside man insofar as that gives service to the ideals for which Medicine stands, this Society will give it unstinted support. After all it would not be without precedent, since a sister province in like position brought two men of long experience from outside points to assist in the solution of their problem.

In an effort to add constructive features to our criticism we have here suggested three items for a local psychiatric programme. These just now appear to us to be very important. They are not offered, however, as the sine qua non in the attainment of our ideals, and so would readily be retracted if a better set were presented. Certainly any trained man coming in should first be offered ample opportunity to investigate and study our problems, and to formulate measures for their solution. In this he would have the sympathy and assistance of all interested men.

Contributions to the Bulletin.

It is to be distinctly understood that the Editors of this Journal do not necessarily subscribe to the views of its contributors, except those which may be expressed on this section.

The publication of erroneous statements as fact and controversial statements as dogmatism should call forth from our readers contributions to the Editors refuting the former and opposing the latter. In this way would the BULLETIN better fulfil its function as a medium through which members may express their views and as an instrument for the advance of medical thought.

CASE REPORTS

ENCEPHALITIS FOLLOWING MEASLES.

Jean M., six years of age was admitted to Hospital January 28, 1936. She was sent in with the complaints of convulsion, cold in the head and mental dulness.

The history showed that the child had been well until January 8th when she took a "cold" with fever, she continued to be thus bothered until January 24, that is 16 days later when she developed a typical attack of rather mild measles (morbilli), the measles ran the usual course, though perhaps the child was more restless and irritable than the average case, until January 28 when she had a frank convulsion, generalized and lasting for several hours in spite of a mixture of chloral and bromide. After the convulsion passed off the child was dull, and frequently cried out, did not seem to recognize her friends and if touched she screamed and acted as if she were blind; for instance she would scream for her aunt to leave her alone no matter who touched her, even when the aunt was not near her; she bitterly complained of the noise the radio was making, when there was no radio or any noise whatever. She resented handling and screamed invectives on being touched.

On admission the evening of the convulsion she was much the same condition as described in the history, nearly unconscious, screaming out at times, and talking incoherently at times, she would not answer questions, nor obey a command, she slept in naps but when awake was noisy and restless. Examination showed fever of 103, pulse 130 and respiration 30. The heart, lungs and ears were negative, there was some discharge from the nose, and the conjunctivae were inflammed and there was a fading measles rash over the body, otherwise the only abnormal signs were found in the nervous system. There was some stiffness of the neck, Brudzinsky sign was positive and Kernig's signs were positive, there was some generalized spasticity and increase of the tendon reflexes.

Lumbar puncture was done shortly after admission and reported as follows:

Slightly clouded and containing small flakes,
Cell count.....232.
Protein..... 70 mg. per 100 ml.
Chlorides.....710 mg. per 100 ml.
Lange curve,.....1111221000.
Kahn test,.....negative.
Blood cells very few....

After three days in the hospital the fever left her and the pulse became of normal rate, but there was little change in the condition generally for about a week, the patient continuing to sleep in short naps, and to shout and scream, and to talk incoherently, she took some food but otherwise did not seem to be conscious except that she strongly resented handling, from this on she gradually improved, became more docile, spoke when questioned, but even at the end of two weeks she made little or no attempt to sit up or to help her-

self, and when she was discharged about a week later, she was very quiet, inactive and had a look as if she were confused. After returning home to date she has made satisfactory progress.

Diagnosis: Encephalitis following measles.

M. J. CARNEY.

PNEUMOCOCCAL SEPTICAEMIA.

Baby Boy, three months of age, was admitted to Hospital on the afternoon of 14, 2, 1936.

The mother stated that though somewhat pale from birth the baby had always been healthy and cheerful up until the night before admission when out of a clear sky and without any apparent reason and without other symptoms he began to cry out, and he continued to cry all night with very little let up, it was not an ordinary cry but a loud screaming, he refused his feedings, and nothing could be done to ease him, at times he would stiffen out and grasp tightly anything his hands touched upon. Towards morning he quieted down some, and accepted his bottle, but later on in the day he began to again scream, but now he would stop if picked up, though he whimpered, and what feeding he took he would vomit. He had no cough, no bowel disturbance or other symptom.

That afternoon he was admitted to the Hospital, and at a glance it was readily seen that the baby was in a desperate condition. Temperature 101; Pulse 120; Respiration 60 plus. The respiration and the pulse are approximations only, as not only was the baby very restless but both the breathing and the heart were extremely irregular in their actions. There was general pallor and cyanosis especially of the extremities, the legs and forearms being deep blue. The body was moist and looked and felt cold and semicoma was present. The baby cried loudly even when not touched and when handled he screamed out, loud and shrill, and struggled like a wild thing. At times he would tense his body and twitch in various muscles, at other times he would flex his extremities tightly and again at times there would be generalized convulsions with rolling of the eyes and throwing back of the head. Between these there was usually a coarse lateral nystagmus. Owing to the violent struggling of the child on handling one could not be sure of the tendons reflexes, nor could one test for Kernig's or Brudzinsky's signs; the fonatanelle was tense and bulged so that the bulging was easily discernable on inspection.

Nose and throat were negative. There was no discharge from the ears, no attempt was made to examine the drum heads.

The breathing for the most part was shallow, rapid, quiet, but very irregular with wide excursions of the alae nasi. Chest examination showed slight impairment of percussion note at the right base posteriorly, where the breathing was diminished and approached bronch-vesicular in type, elsewhere over the lungs the breathing was peurile and over both lungs were fairly numerous very fine crepitations.

The heart's sounds were very variable, at times the sounds were weak and near tic-tack quality, then again the rate would be rather slow with a loud heavy quality, suggesting the pulse of intracranial pressure. On account

of the struggling and the small volume one could not feel the pulse at the wrist at all.

The abdomen was distended uniformly, but was apparently not tender and there was no evidence of fluid, not could the liver or spleen be felt, and no glands or masses were felt.

The blood was not examined.

Urine could not be obtained for study.

There was no glandular adenopathy and the bones and extremities were normal.

The spinal fluid was characteristic of acute meningitis and showed the presence of pneumococci.

The child became more comatose, less irritable and developed generalized twitchings and died less than 36 hours after the onset of the first symptom of illness.

Although the blood was not examined the combination of meningitis and pneumonitis and the presence of pneumococcus in the spinal fluid speaks for a pneumococcal septicaemia of a most fulminating type.

M. J. CARNEY.

ACUTE SUPPURATIVE ARTHRITIS.

G. K., six years, male, white. Admitted to the Children's Hospital, May 20, 1935.

Complaint. Lame in the left leg, knee swollen and tender, weight bearing painful with femoral glands enlarged and tender, and redness of the skin.

History. Three weeks before admission the left knee began to swell. A local doctor was called in and sent it to the Dalhousie Public Health Clinic. The child did not return to the Clinic until nearly three weeks had elapsed from the time of the first visit. Three days before admission to the hospital antiphlogistine was applied with no beneficial result, the knee continuing to gain in size. At this time the femoral glands were enlarged and tender. The knee joint was red and tender, with considerable heat. The child was feverish, and below par, with loss of appetite. No history of tuberculosis in the family.

When the patient was admitted, hot boracic compresses to the knee were applied daily. These were continued until June 5th, the date of the first operation. Knee at rest with a posterior splint.

May 28th. 1935. To X-ray. Film of left knee joint shows marked synovial thickening. No invasion of bone, no bone necrosis.

May 30th. 1935. The knee joint aspirated. No evidence of tubercle bacilli, but numerous pus and red cells were seen. Guinea-pig inoculated.

May 31st. 1935. Kahn test—negative. Fluid from knee joint shows many blood and pus cells. No tubercle bacilli seen.

June 5th. 1935. To S. O. R. Arthrotomy to knee joint, laterally and under patella. Much serous straw coloured fluid evacuted under tension. A tube inserted, across, through joint to be removed in twenty-four hours. Posterior splint applied. Dressing daily to knee; of wet boric lint covered with oiled silk.

June 20th. 1935. X-ray examination of left knee joint does not show any evidence of old infection. Articulating surfaces are clear. There is marked effusion observed in joint spaces.

June 24th. 1935. Fluid from joint negative for tubercle bacilli. To S. O. R. Modified Kocher incision to knee joint. Surfaces in joint smooth, although there is much synovial thickening. Patella bursa full of pus, and surface of patella eroded somewhat. Wet dressing applied after operation. To be changed every day, always keeping it moist. Active movement of joint once daily (flexion and extension) several times.

June 25th. 1935. Smears of pus show many pus cells, lymphocytes and an occasional diplococcus. Cultures give a moderate growth of staphylococcus aureus.

August 12th. 1935. X-ray examination shows synovial thickening, without any definite indication of necrosis.

August 28th. 1935. Guinea-pig inoculation report negative for tubercle bacilli. All dressings removed, wound healed with perfect funtion of joint. Child played around under observation in hospital.

September 3rd. 1935. Wound on knee was probed and a little thin pus taken off. Moist boracic compresses to knee had it completely healed in a few days.

October 3rd. 1935. To S. O. R. for tonsillectomy.

October 10th. 1935. Discharged, completely cured.

While patient was in hospital a liberal house diet was given him. His appetite improved rapidly from admission date. The child ran an intermittent temperature for three weeks with 101.5°F., highest temperature recorded. Following this, the temperature was fairly steady never going above 100°F., at any time.

Diagnosis. Acute suppurative arthritis left knee joint.

Treatment. Free incisions into knee joint and continuous drainage until healed.

February 28th. 1936. Knee joint gives a perfect functional result, equal to the normal one.

PHILIP WEATHERBE.

The BULLETIN FORUM

THE CANADIAN MEDICAL ASSOCIATION.
NOVA SCOTIA DIVISION.

Canning, N. S.,
Feb. 25th, 1936.

Dear Dr. Gosse:

I have read with interest the last issue of the BULLETIN, particularly the section on Federation with the C. M. A. While not a very active member of either the C. M. A. or the N. S. M. S., I have always made it a practice to be a member of the C. M. A. in preference to our local Society, and I think always would. As a matter of fact, when I came here, in a way an outsider, I was not particularly impressed with the business methods of the Society, for the first intimation I had that there *was* a local Society, was of being haled into the Bank one day and being presented with a sight draft for $10.00 in favour of the N. S. M. S. That has always rankled a bit, even though I realize it was sound business on the part of the Society, and I certainly did not expect to be greeted as a practitioner in Nova Scotia with a blare of brass bands.

However, that is aside from what I was thinking of when I sat down to write. I was very much impressed last summer with the idea that we in Nova Scotia should become the C. M. A.—Nova Scotia Division. It would seem highly desirable in *all* respects, in spite of what a few "provincials" feel, in a typical Maritime frame of mind, that all will be dominated by Ontario!

In looking over the analysis of membership in any Society, one can't help but be struck with the fact that such a large percentage of men are apparently not interested in *any* Society—something to be deplored, with so much of a legislative nature particularly in store for the medical profession in the next few years. It would seem highly desirable to encourage new membership—and it seems to me that the financial arrangements of Federation, are not being handled very well by our local Society—and will *discourage* new membership—and possibly even removal of old. The C. M. A. is giving up $2.00 of their fee, making the proposed Federated fee $18.00—what is the reason that the N. S. Society can't come half way and reduce theirs in proportion, or better still make a composite fee of $15.00. Personally I find there are far too many places to put $10.00 or $20.00, and I feel that there are many like me. And apparently it is $18.00 or no membership in any Society. Surely if the C. M. A., which must be under more financial strain than the N. S. M. S., can reduce its fee to $8.00, the local Society could at least do the same. It seems decidely short sighted, and very apt to help to defeat Federation, and to discourage membership in any Society. It seems too bad that there isn't more interest manifest on the part of the profession in the issue.

Yours truly,

(Sgd.) E. K. WOODROOFE.

We are very glad to have Dr. Woodroofe's views upon this very important matter. Our Committee on Federation has asked for just such expressions as this and both they and we would welcome the views of all others who are interested.—Editor.

A BOUQUET FOR DR. CORSTON AND HIS COMMITTEE ON FEDERATION.

The Canadian Medical Association Journal

3640 University Street,
Montreal, Feb. 27, 1936.

DR. N. H. GOSSE,
Editor, Nova Scotia Medical Bulletin,
82 Spring Garden Road,
Halifax, N. S.

My dear Gosse,

I notice in the last issue of your BULLETIN a reference to the question of federation of the various provincial medical associations into one covering organization namely the Canadian Medical Association. It is a very clear and effective presentation of the subject, the points of which can easily be picked out. I am glad to note that the only objection to the scheme is an increased fee for certain of the medical men. If this is the only objection I have good hopes. I sincerely trust that the scheme will go through, for I think the advantages are overwhelming.

I would like to thank you also for the kind reference to our Journal which I can assure you is much appreciated.

Hoping you are well, and with kind regards, I am,

Yours sincerely,

A. G. NICHOLS, Editor

AS OTHERS SEE US.

The Journal of the Michigan State Medical Society

Office of J. H. Dempster, M.A.,M.D., Editor.
5761 Stanton Ave., Detroit, Mich.

March 2, 1936.

DR. N. H. GOSSE,
Halifax, Nova Scotia

My dear Doctor Gosse:

I received the February number of the Nova Scotia Medical Bulletin a day or so ago. Your editorial on "Health Insurance or Free Medicine" interested me. You are having your medical social problems as well as we. The second to the last section impressed me very much. I have been claiming time and again in our Journal that the socialization of medical practice will have the effect of eliminating from the profession a large number of doctors; your (Canadian) percentage is fifty. I believe very few physicians realize this feature of state medicine. I am commending this survey in the April number of this Journal.

I was further interested in your contemplated federation with the Canadian Medical Association. I was under the impression that the Canadian Medical Association was made up of all the provinces of Canada the same as our A. M. A. consists of representation from all the states of the Union. Here the county society is the basic unit; it is the only gateway into the state and national association. It is really an ideal arrangement. Each unit has its own constitution and by-laws and there is no conflicting of rights or duties. In these doubtful times a strong central organization is a necessity. Nothing can be accomplished without it; perhaps nothing much with it if the demand for state medicine becomes overwhelming.

I have just reviewed MacDermot's book on the Canadian Medical Association. See April number, Journal MSMS. I asked the secretary to exchange with you. Are you receiving it regularly?

We have in this state 5000 M. D.'s, 3500 of whom are members of the county and state medical societies. Detroit has 2000 physicians, 1500 of whom are members of both county and state medical societies. The Wayne County Medical Society has four branch societies; East Side, West Side, Highland Park and Dearborn. Besides, every medical and surgical specialty is organized into specialist groups.

I recall the pleasant little dinner visit last October. I like to meet Canadians. I have been a resident of the United States (Detroit) for nearly twenty-seven years.

With kind personal regards,

I remain,

Sincerly yours,

J. H. DEMPSTER.

"Stone walls do not a prison make
Nor iron bars a cage."

Winter is a jailer who shuts us all in from the fullest vitamin D value of sunlight. The baby becomes virtually a prisoner, in several senses: first of all, meterologic observations prove that winter sunshine in most sections of the country averages 10 to 50 per cent less than summer sunshine. Secondly, the quality of the available sunshine is inferior due to the shorter distance of the sun from the earth altering the angle of the sun's rays. Again, the hour of the day has an important bearing: At 8:30 A.M. there is an average loss of over 31%, and at 3:30 P.M., over 21%.

Furthermore, at this season, the mother is likely to bundle her baby to keep it warm, shutting out the sun from Baby's skin; and in turning the carriage away from the wind, she may also turn the child's face away from the sun. Moreover, as Dr. Alfred F. Hess has pointed out, "it has never been determined whether the skin of individuals varies in its content of ergosterol" (synthesized by the sun's rays into vitamin D) "or, again, whether this factor is equally distributed throughout the surface of the body."

While neither Mead's Oleum Percomorphum nor Mead's Cod Liver Oil Fortified With Percomorph Liver Oil constitutes a substitute for sunshine. They do offer an effective, controllable supplement especially important because the only natural foodstuff that contains appreciable quantities of vitamin D is egg-yolk. Unlike winter sunshine, the vitamin D value of Mead's antiricketic products does not vary from day to day or from hour to hour.

Medal to Hospital.

Signal honor was brought to Canada and to the Royal Victoria Hospital, Montreal through Dr. Daivd W. Mackenzie, director of the department of urology at the institution, who was awarded the silver medal of the American Medical Association for research work he had conducted at the hospital. More than seven hundred hospitals throughout the United States and Canada entered exhibits in the competition and the medal awarded to Dr. Mackenzie was equivalent to the second prize.

New Clinic Ship

Newfoundland's new "travelling clinc" set out recently on her madien voyage after being chirstened by Lady Anderson, wife of Governor Sir David Murray Anderson, who gave the hospital ship her own name.... They Lady Anderson will operate along the southwest coast, travelling between "cottage hospital" which the government proposes erecting. Between the ship and the hospitals adequate medical service is expected to be provided for outporters, usually without it in the winter.

Doctors to Artic.

The annual government patrol of the Eastern Arctic this year was enlarged to include special investigation of health problems in the territory. The Expedition which left Montreal on July 13th included among its members three doctors, Arthur Richard, ship's doctor, C. C. Birchard, and I. M. Rabinovitch who investigated Eskimo health conditions. Dr. Richard inspected the Eskimo encampment at Ungava Bay. which has a population of slightly less than a thousand and is one the largest Eskimo settlements in the world. The other two physicians made a general study of the health of the Eskimo population with special refence to diet and nutrition.

Perhaps the most aggravating of our perennial problems is the failure to create understanding between the practitioners of different generations, and between those connected with teaching institutions and those on the outside. It may come as, great surprise to many to learn that the clearing up of these misunderstandings is the objective of scientific programs in this and every other county medical society. It will be found frequently that the understanding of a certain condition, either of the human body or medico-sociologic body, is more or less uniform in all groups but expressed so differently in each group as to look like something else. This brings us back to the desirability of attendance upon all the meetings of the society.—*The Weekly Roster and Medical Digest, Philadelphia.*

Once you get properly ink-stained it isn't likely you will ever be quite the same again. It is something like the first drink, only a lot more wholesome. But, facetiousness aside. Ink stains are mighty good for medical men. You have been told a thousand times why. If you doubt, try for yourself, and learn. How do you know you cannot write? Writing is very much like playing a game or a musical instrument—it comes easier and improves (or should) with practice.—*The Bulletin of The Academy of Medicine of Toledo.*

Department of the Public Health

PROVINCE OF NOVA SCOTIA

Office—Metropole Building, Hollis Street, Halifax, N. S.

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Hall, E. B., Bridgetown.
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Kelley, H. E., Middleton (County & Town).

ANTIGONISH COUNTY

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Johnstone, L. W., Sydney Mines
McNeil, J. R., Glace Bay.
McLeod, J. K., Sydney.
O'Neil, F., Sydney (County), South Side.
Murray, R. L., North Sydney.
Townsend, H. J., Louisburg.
Gouthro, A. C., Little Bras d'Or Bridge (Co. North Side.)

COLCHESTER COUNTY

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Havey, H. B., Stewiacke.
Johnston, T. R., Great Village (County)

CUMBERLAND COUNTY

Bliss, G. C. W., Amherst.
Drury, D., Amherst (County).
Gilroy, J. R., Oxford.
Hill, F. L., Parrsboro.
Eaton, R. B., River Hebert (Joggins).
Withrow, R. R., Springhill.

Communicable Diseases Reported by the Medical Health Officers for the month of February, 1936.

County	Chickenpox	Diphtheria	Infantile Paralysis	Influenza	Measles	Mumps	Paratyphoid	Pneumonia	Scarlet Fever	Typhoid Fever	Tbc. Pulmonary	Tbc.-other Forms	V. D. G.	V. D. S.	Whooping Cough	Pink Eye	German Measles	Septic Throat	TOTAL
Annapolis	22	..	..	..	..	13	..	..	..	..	..	..	..	..	2	..	..	..	37
Antigonish	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cape Breton	5	5	..	..	..	..	..	..	3	..	..	..	..	..	20	1	..	..	34
Colchester	..	..	..	5	3	..	..	2	..	..	1	..	..	..	57	..	2	..	70
Cumberland	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Digby	1	..	..	..	..	12	..	..	5	..	..	..	..	..	..	..	4	..	22
Guysboro	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1
Halifax City	1	22	..	..	47	..	..	..	25	..	2	..	..	..	4	..	4	..	105
Halifax	1	..	..	..	8	..	..	..	1	..	3	..	..	..	..	..	..	..	13
Hants	..	..	..	..	17	..	..	..	..	..	..	..	..	..	..	..	..	..	17
Inverness	..	..	..	..	..	..	..	1	..	..	..	..	..	..	27	..	..	..	28
Kings	8	..	..	8	5	6	..	..	..	..	..	..	..	..	..	..	12	1	40
Lunenburg	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Pictou	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	2
Queens	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Richmond	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Shelburne	..	..	..	..	..	5	..	1	..	..	..	..	..	..		..	..	..	6
Victoria	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Yarmouth	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
TOTAL	40	27	..	13	80	36	..	5	34	..	6	..	1	..	110	1	22	1	376

Positive cases Tbc. reported by D. M. H. O's. 66.

RETURNS VITAL STATISTICS FOR JANUARY, 1936.

County	Births		Marriages	Deaths		Stillbirths
	M	F		M	F	
Annapolis	15	8	3	11	13	0
Antigonish	6	14	1	7	5	0
Cape Breton	122	95	54	50	53	3
Colchester	35	16	27	11	6	1
Cumberland	31	42	18	17	14	4
Digby	8	10	3	9	6	0
Guysboro	18	12	5	6	5	1
Halifax	102	95	68	67	57	9
Hants	21	15	11	11	13	0
Inverness	7	16	6	19	13	1
Kings	42	22	16	24	22	1
Lunenburg	19	25	10	15	17	4
Pictou	29	20	14	17	19	1
Queens	8	13	6	4	3	0
Richmond	7	12	3	5	7	0
Shelburne	11	11	7	6	7	1
Victoria	2	6	2	7	6	0
Yarmouth	17	22	7	13	8	0
	500	454	261	299	274	26

DIGBY COUNTY

McCleave, J. R., Digby.
Rice, F. E., Sandy Cove (Mcpy.).
Belliveau. P. E., Meteghan.Clare Mcpy.

GUYSBORO COUNTY

Chisholm, A. N., Port Hawkesbury (Mulgrave).
Sodero, G. W., Guysboro (Mcpy).
Moore, E. F., Canso.
Monaghan, T. T., Sherbrooke (St. Mary's Mcpy).

HALIFAX COUNTY

Almon, W. B., Halifax.
Forrest, W. D., Halifax (County).
Glenister, E. I., Dartmouth.

HANTS COUNTY

Bissett, E. E., Windsor.
MacLellan, R. A., Rawdon Gold Mines (East Hants Mcpy).
Reid, A. R., Windsor (West Hants Mcpy).
Shankel, F. R., Windsor (Hantsport).

INVERNESS COUNTY

MacLeod, J. R., Port Hawkesbury
Chisholm, D. M., Port Hood.
Chisholm, M., Margaree Harbour (County).
Ratchford, H. A., Inverness.

KINGS COUNTY

Bishop, B. S., Kentville.
Bethune, R. O., Berwick (Co. and Town).
deWitt, C. E. A., Wolfville.

LUNENBURG COUNTY

Marcus, S., Bridgewater (Mcpy.).
Rehfuss, W. N., Bridgewater.
McKinnon, C. G., Mahone Bay
Zinck, R. C., Lunenburg.
Zwicker, D. W. N., Chester (Chester Mcpy).

PICTOU COUNTY

Crummy, C. B., Trenton.
Blackett, A. E., New Glasgow.
Chisholm, H. D., Springville, (County).
MacMillan, J. L. Westville.
Stramberg, C. W., Trenton.
Sutherland, R. H., Pictou.
Benvie, R. M., Stellarton.

QUEENS COUNTY

Ford, T. R., Liverpool (County).
Hebb, F. J., Liverpool.

RICHMOND COUNTY

Deveau, G. R., Arichat (County).

SHELBURNE COUNTY

Brown, G. W., Clark's Harbour.
Churchill, L. P., Shelburne.
Fuller, L. O., Shelburne.
Banks, H. H., Barrington Passage (Barrington Mcpy).
Herbin, C. A., Lockeport.

VICTORIA COUNTY

MacMillan, C. L., Baddeck (County).

YARMOUTH COUNTY

Blackadar, R. L., Port Maitland (Mcpy).
Burton, G. V., Yarmouth.
O'Brien, W. C., Wedgeport.
Siddall, A. M., Pubnico (Argyle Mcpy.).

Those physicians wishing to make use of the free diagnostic services offered by the Public Health Laboratory, will please address material to Dr. D. J. MacKenzie, Public Health Laboratory, Pathological Institute, Morris Street, Halifax. This free service has reference to the examination of such specimens as will assist in the diagnosis and control of communicable diseases; including Kahn test, Widal test, blood culture, cerebro spinal fluid, gonococci and sputa smears, bacteriological examination of pleural fluid, urine and faeces for tubercle or typhoid, water and milk analysis.

In connection with Cancer Control, tumor tissues are examined free. These should be addressed to Dr. R. P. Smith, Pathological Institute, Morris Street, Halifax.

All orders for Vaccines and sera are to be sent to the Department of the Public Health, Metropole Building, Halifax.

Report on Tissues sectioned at the Provincial Pathological Laboratory from February 1st, 1936, to March 1st, 1936.

During the month, 184 tissues were sectioned and examined, which with 34 tissues from 7 autoposies, makes a total of 218 tissues.

Tumours, malignant	35
Tumours, simple	24
Tumours, suspicious	..
Other conditions	125
Tissues from 7 autopsies	34
	—218

OBITUARY

THERE passed away at his home in Albany, New York on February 3rd' Dr. Edgar James Torey, a former resident of Windsor. Dr. Torey, a native of Guysboro, went to Windsor as a young man as Principal of the Windsor schools. Resigning from that post he went into partnership with J. A. B. Shaw, druggist. Later he moved to Dectaur, Ill., where he practised medicine, and later moved to Albany, N. Y. Dr. Torey was a graduate of the University of New York, 1890.

Word has been received of the death of Dr. William S. Fullerton of St. Paul, Minn. Dr. Fullerton was born in Nova Scotia, and taught school at Bear River. His wife was a Miss Moore of that place. Dr. Fullerton was a graduate of the Bell Hospital Medical School, 1882.

Following an illness with pneumonia of just one week, Dr. Geoffrey Marshall Morris, 35, son of Col. C. H. Morris, M.D.,V.D., and the late Mrs. Morris of Windsor, died at his home in Gila, Arizona, on February 24th.

Born in Windsor, Dr. Morris received his early education at King's Collegiate School and in 1918 was a cadet at the Royal Military College at Kingston. When the Armistice came he changed his ideals from soldiering to medicine and entered McGill University. He completed his course at Dalhousie and received his medical degree in 1928. During the past few years he served in the State Public Health Departments of Arizona and Tennessee. Previous to the time of his death he was Director of the Gila County Health Unit of the Arizona State Health Department with headquarters at Gila.

Besides his wife, the former Miss Marion Priest of Pictou, there are surviving one son, Donald, aged three, Colonel Morris, father of the deceased, two brothers, Gilbert and David, and one sister, Claire, Mrs. John Puddicome of Ottawa.

It is with deep regret that we have to record the death of the well known and beloved physician, Dr. Lewis W. Johnstone of Sydney Mines. The death came with tragic suddeness Monday, March 9th, when he succumbed to burns following a fire in his residence.

Very recently he partly recovered from a stroke which laid him up in the hospital for a few weeks, only returning home a day or two before his death. His death has cast a gloom not only over the town of Sydney Mines where he practised his profession for so many years, but over the whole island where his name was a household word. His life was an exceedingly active and busy one for he lived and practised in Sydney Mines for about half a century.

Dr. Johnstone who had reached the age of seventy-five was born in Sydney, a son of the late Dr. and Mrs. Lewis Johnstone, members of two old and dis-

tinguished families, the Johnstone's and Dodd's, known throughout thel ength and breadth of the Province for their connection with the political and business life of the country. Both grandfathers were eminent Judges of the Supreme Court of Nova Scotia.

Dr. Lewis Johnstone father of the deceased practised his profession at Cow Bay and afterwards removed to Sydney Mines. Here Dr. Lewis W. Johnstone, upon graduating from Bellevue Hospital Medical College New York, began his life's career as a medical man and soon built up a large practice in this important Nova Scotia colliery.

It was not long before he took an active part in the political life of the country, being elected Mayor of the Town and later in life in 1925 was elected M. P. to North Cape Breton and Victoria, and remained its representative until the election of 1935 when Premier King carried the whole Dominion with such an overwhelming majority. Besides his professional and political activities he was much interested in fraternal organizations, being for many years a member of the Royal Albert Lodge, A. F. and A. M. North Sydney, and afterwards a member of the Royal Oak Lodge, Sydney Mines, being its first Worshipful Master. He was also a P. D. D. of the Grand Lodge of Nova Scotia.

Besides his widow he is survived by one daughter Ethel and one son Lewis. One sister Lena is the last surviving member of one of Cape Breton's oldest and most prominent families. His brother Dr. Edmund Johnstone died in Sydney several years ago.

The funeral took place Thursday afternoon March 12th when hundreds of citizens and sorrowing friends from all sections of the country paid a beautiful tribute to the memory of Dr. Johnstone who served the people so faithfully.

OPTOMETRY APPEAL REFUSED BY JUDGE.

Mr. Justice Doull in the Supreme Court dismissed with costs the appeal of A. W. Penchard, Yarmouth man, previously convicted by Judge Sangster under the Optometry Act.

The accused in this case, a registered optometrist, was charged with supplying glasses by soliciting or canvassing from house to house, contrary to the provisions of the Optometry Act. The facts were that a son of the accused called on various persons and canvassed them to sign a request asking the accused to call upon them professionally. The accused then called in response to the request. As in some cases the accused was waiting in his automobile until the son came out of the house, the County court judge convicted the accused of the offence.

On the appeal two points were argued. The meaning of the word "supply," which was held to include the ordering of the glasses and delivering them "C. O. D." by mail, and a question of the power of the County court to amend the conviction of the magistrate which had read to include a time beyond the statutory period of limitation, although the evidence showed that the offence had been committed within such period. It was held that the judge had the power to make the amendment.

Personal Interest Notes

DR. George L. Covert, son of Lieutenant-Governor W. H. Covert and Mrs. Covert sailed recently for England. Dr. Covert will take up his studies at Edinburgh proceeding to the F. R. C. S. Degree.

Dr. J. G. MacDougall of Halifax sailed on February 20th on the Lady Rodney for New York and will continue on to Nassau.

Dr. and Mrs. L. M. Silver of Halifax are spending a prolonged vacation with friends in Charleston, South Carolina.

Dr. H. H. Pierce, Dalhousie 1926, for a number of years on the State Department of Health in West Virginia in Morgantown, has returned to Nova Scotia and opened an office "for the general practice of medicine" in the Currie Block, Queen Street, Sydney.

Dr. L. R. Meech of North Sydney has returned from an enjoyable trip to the British West Indies.

The many friends of Dr. Harvey D. Hebb, who underwent an operation for appendicitis at the London Hospital, London, England, on Thursday, February 6th, will be glad to learn that he is making a satisfactory recovery.

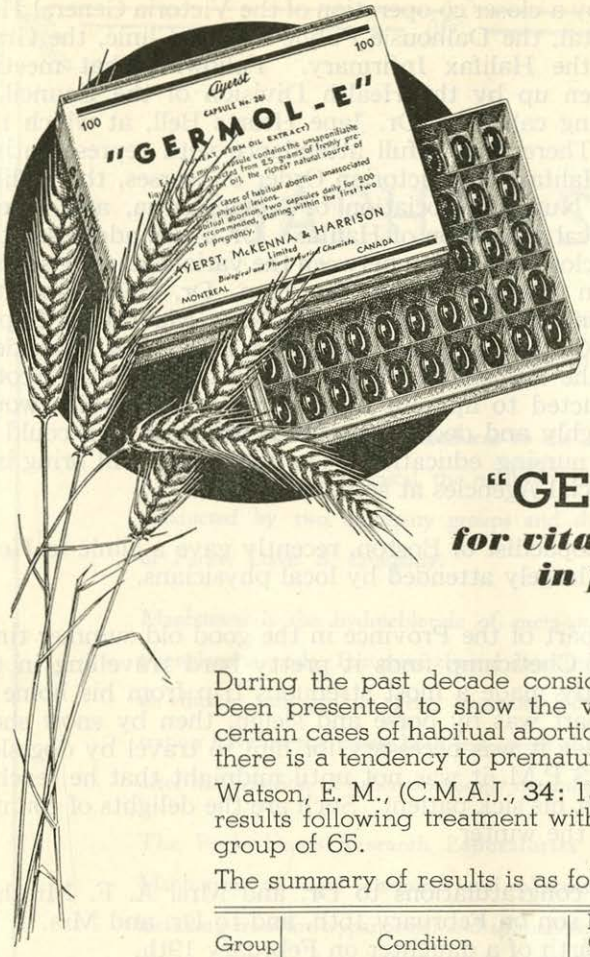
Dr. J. J. MacRitchie of the Provincial Health Department is at present in Upper Canada making a study of the methods of controlling tuberculosis. Dr. MacRitchie plans to visit Ottawa, Weston, London, Muskoka, Hamilton and other Upper Canadian cities where there are institutions for taking care of tubercular patients.

Dr. G. R. Deveau, member of the Nova Scotia Legislative Assembly for Richmond County, and a native of Mavilette, Digby County, has returned to Arichat after three weeks' vacation in the United States where he attended the Lahey Clinic in Boston. He is much improved in health and will attend the Legislative Assembly in Halifax.

Dr. J. S. Robertson, graduate of Dalhousie, 1934, and recently a member of the medical staff of the Nova Scotia Sanatorium, has taken over the practice of the late Dr. J. R. B. MacLeod of Port Hawkesbury.

Dr. L. P. Churchill was recently re-elected Chairman of the Shelburne School Board, at a meeting of that body in that town.

Dr. Atlee advocates better training for nurses. At the annual meeting of the Victorian Order of Nurses held some few weeks ago Dr. H. B. Atlee of Halifax spoke on nursing education. Dr. Atlee pointed out the deficiencies of most of the schools in Halifax, and suggested that a decided im-



A NEW *Ayerst* PRODUCT

"GERMOL-E"

for vitamin E therapy in pregnancy

During the past decade considerable evidence has been presented to show the value of vitamin E in certain cases of habitual abortion and in cases where there is a tendency to premature births.

Watson, E. M., (C.M.A.J., 34: 134, Feb. 1936) reports results following treatment with wheat germ oil in a group of 65.

The summary of results is as follows:—

Group	Condition	No. of Cases	Successes	Failures
I	Two or more abortions (habitual abortion).....	28	21	7
II	One previous abortion.....	9	8	1
III	Threatened abortion.....	15	11	4
IV	Sterility.....	13	0	13

Ayerst "Germol-E" is made from wheat germ oil, the richest natural source of vitamin E. Each five minim capsule contains the unsaponifiable liquid matter extracted from 2.5 grams of freshly prepared wheat germ oil.

In boxes of 50 and 100 capsules.

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Biological and Pharmaceutical Chemists

MONTREAL CANADA

provement could be made by a closer co-operation of the Victoria General Hospital, the Children's Hospital, the Dalhousie Public Health Clinic, the Grace Maternity Hospital, and the Halifax Infirmary. Following that meeting the subject was again taken up by the Health Division of the Council of Social Agencies at a meeting called by Dr. Jane Heartz Bell, at which this subject was discussed. There was a full attendance with representatives from all the Hospitals in Halifax, the Victorian Order of Nurses, the Halifax Branch of the Registered Nurses Association of Nova Scotia, and several representatives of the medical profession of Halifax. Dr. Atlee addressed this meeting again suggesting a closer affiliation between the various nursing schools and considerable discussion followed. The Chairman, Dr. Bell, appointed a nominating committee consisting of Dr. Atlee, Dr. G. A. MacIntosh, Superintendent of the Victorian General Hospital, and Miss V. Winslow, President of the Halifax Branch of the Registered Nurses Association of Nova Scotia. This committee was instructed to appoint a larger committee, which would go into the matter thoroughly and decide whether a practical plan could be worked outfor improving nursing education. The committee will bring in a report to the Council of Social Agencies at some later date.

Dr. MacAusland, Orthopaedist of Boston, recently gave a clinic in Hotel Dieu, Moncton, which was largely attended by local physicians.

Cape Breton is a fine part of the Province in the good old summer time, but Dr. J. L. LeBlanc of Cheticamp finds it pretty hard travelling in the winter. The Doctor recently made a most strenuous trip from his home to Pleasant Bay. The first part was by horse and sleigh, then by snow shoes and after an injury to his leg it was necessary for him to travel by dog sled. Starting from his home at 3 P.M. it was not until midnight that he reached the lonely settlement to visit his sick patient. Such are the delights of country practice in Cape Breton in the winter.

The BULLETIN extends congratulations to Dr. and Mrs. A. F. Minshull of Halifax on the birth of a son on February 16th, and to Dr. and Mrs. J. W. Merritt of Halifax on the birth of a daughter on February 19th.

Have You Made Out Your Income Tax?

RETURNS BY MEMBERS OF THE MEDICAL PROFESSION.

As a matter of guidance to the medical profession and to bring about a greater uniformity in the data to be furnished to the Income Tax Division of the Department of National Revenue in the Annual Income Tax Returns to be filed, the following matters are set out:

INCOME

1. There should be maintained by the Doctor an accurate record of income received, both as fees from his profession and by way of investment income. The record should be clear and capable of being readily checked against the return filed. It may be maintained on cards or in books kept for the purpose.

EXPENSES

2. Under the heading of expenses the following accounts should be maintained and records kept available for checking purposes in support of charges made:

(a) Medical, surgical and like supplies;

(b) Office help, nurse, maid and bookkeeper; laundry and malpractice insurance premiums. (It is to be noted that the Income War Tax Act does not allow as a deduction a salary paid by a husband to a wife or vice versa. Such amount, if paid, is to be added back to the income).

(c) Telephone expenses;

(d) Assistant's fees: The names and addresses of the assistants to whom fees are paid should be furnished. This information is to be given this year on or before the 31st March, but on or before the last day of February in each subsequent year on Income Tax Form known as Form T-4, obtainable from the Inspector of Income Tax. (Do not confuse with the individual return of income, Form T. 1, to be filed on or before 30th April in each year);

(e) Rentals paid: The name and address of the owner (preferably) or agent of the rented premises should be furnished. (See j);

(f) Postage and stationery:

(g) Depreciation on medical equipment: The following rates will be allowed provided the total depreciation already charged off has not already extinguished the asset value:—

Pediatric Acceptance of DEXTRI-MALTOSE is Constantly Increasing

Continued down from 1911

1934

"The question of carbohydrate is one of individual tolerance. Personally, I like Dextri-Maltose."—*L. Fischer: Pediatric progress during the last fifty years, Arch. Pediat. 51:207-218, April 1934.*

1934

"Cow's milk has a caloric value of 20 calories per ounce. Dextri-Maltose, commonly used, has 120 calories per ounce. As an example let us say that we have a well baby four months of age weighing 14 pounds. According to the rule, he should have 45 calories per pound per day, or 630 calories. Sugar requirements will be 1½ ounces—that is, 180 calories. Then deduct this from the 630 calories needed for the day and this leaves 450 calories to be supplied from the milk. 450 divided by 20 calories makes 22½ ounces of milk needed. The baby will probably take 7 ounces at each feeding and five feedings will be needed or a total of 35 ounces. This will leave 12½ ounces of water to be added and your formula will be:—

22½ ounces of cow's milk
12½ ounces of water
1½ ounces of Dextri-Maltose

Divide into five feedings of 7 ounces each and feed every four hours."—*B. F. Thomas: Infant care and feeding, J. M. A. Alabama 3:348-351, April 1934.*

1934

"Within a week it became necessary to place the baby entirely on a milk formula. This was a mixture of milk, water, and dextrimaltose, and he thrived on it."—*J. M. Higgins: Acute lymphatic aleukemic leukemia, Pennsylvania M. J. 37:818-819, July 1934*

1934

"The dietetic treatment of pylorospasm yields gratifying results, the use of a thick farina formula usually proving successful. This is prepared as follows:

Skimmed milk.....10 ounces
Water.....12 ounces
Farina..... 5 level tablespoonfuls
Dextri-maltose No. 1 3 level tablespoonfuls

"Mix the milk and water together and bring to a boil. Then sprinkle in slowly 5 level tablespoonfuls of farina and boil over a direct flame for five minutes, stirring continually. Transfer to a double boiler and cook for one hour. After the mixture is cooked add the dextri-maltose."—*C. S. Raue: The dietetic treatment of nutritional disorders in infancy, Hahneman. Monthly 69:522-528, July 1934.*

1934

For pyloric stenosis, "He was given atropine sulphate grains 1/1000 before each feeding and this was increased to grains 1/500 before vomiting was controlled. The formula consisted of cow's milk 16 ounces, water 16 ounces, dextri-maltose 2 level tablespoonfuls and uncooked farina 6 tablespoonfuls. He was fed 6 tablespoonfuls every 4 hours, 6 feedings a day. . . . In 5 days time there was a gain of 25 ounces. He was under treatment for a period of 5 months and 26 days during which time there was a gain of 14 pounds and 7 ounces."—*R. D. Hostetter: Pyloric stenosis, Ohio State M. J. 30:505-508, Aug. 1934.*

1934

"The mother's breast feedings were complemented by a mixture of three quarters milk, water and dextri-maltose. After a loss of 5 ounces (175.1 Gm.) during the first three days, the child gained steadily, weighing 7 pounds and 5 ounces (3,316.9 Gm.) by the eighth day."—*S. S. Brown, M. Morrison and D. A. Meyer: Anemia of the new-born without erythroblastosis: Observations at autopsy, Am. J. Dis. Child. 48:335-345, Aug. 1934.*

1934

"A formula of cow's milk, water, and dextri-maltose was given. The feedings were well taken, and the stools were normal."—*J. L. Rothstein: Low calcium tetany in the newborn, J. Pediat. 5:341-351, Sept. 1934.*

1934

"Dextri-Maltose is, of course, the best sugar but expensive.* Cane sugar gives fairly satisfactory results except in very advanced cases, when dextrimaltose must be given."—*K. C. Chaudhuri: Marasmus and its treatment, M. Digest 2:246-249, Oct. 1934.*

1934

"Meads Dextri Maltose is preferred, as it is not advertised to the laity. It contains dextrins and maltose in almost equal amounts, and in the three varieties varies only in the amount of sodium chloride and potassium bicarbonate they carry."—*G. Wiswell: Proprietary foods in infant feeding, Nova Scotia M. Bull. 13:483-485, Oct. 1934.*

1934

"To be sure, one can still raise well infants, using commercial granulated sugar, but one has a distinctly safer feeling, in the presence of disease, when a combination of sugars, such as dextrins and maltose, can be employed."—*L. C. Schroeder: The treatment of pneumonia in infants and children, M. Clin. North America 18:811-826, Nov. 1934.*

1934

In pyloric stenosis, "Finally, if the stools are inclined to be hard and dry and the fluid intake falls below 2.5 to 3 oz. per pound body-weight, additional fluids, preferably in the form of a solution of one of the dextrin-maltose preparations, between feedings, will usually be sufficient."—*C. C. Fischer: Constipation in infancy and childhood, Hahneman. Monthly 69:913-918, Dec. 1934.*

1934

"A sugar of the dextri-maltose type seems to be the most consistently and universally satisfactory."—*H. D. Lynch: Fundamentals of infant feeding, J. Indiana M. A. 27:571-574, Dec. 1934.*

(to be continued)

Instruments—Instruments costing $50.00 or under may be taken as an expense and charged off in the year of purchase;
Instruments costing over $50.00 are not to be charged off as an expense in the year of purchase, but are to be capitalized and charged off rateably over the estimated life of the instrument at depreciation rates of 15% to 25%, as may be determined between the practitioner and the Division according to the character of the instrument, but whatever rate is determined upon will be consistently adhered to;
The residual value of instruments not heretofore fully depreciated will be depreciated along with instruments costing over $50.00 purchased subsequently;

Office furniture and fixtures—10% per annum;

Library—The residual value of library not heretofore fully depreciated will continue to be depreciated at 10% per annum for the years 1932, 1933 and 1934 as well as charging off the actual cost of books purchased in those years. After 1934, only the cost of new books will be allowed as a charge.

(h) Depreciation on motor cars on cost;
20%, 1st year; 20%, 2nd year; 20%, 3rd year; 20%, 4th year; 20%, 5th year. The allowance is restricted to the car used in professional practice and does not apply to cars used for personal use.

(i) Automobile expense;(one car): This account will include cost of license, oil, gasoline, grease, insurance, washing, garage charges and repairs;
(Alternative to (h) and (i)—In lieu of all the foregoing expenses, including depreciation, there may be allowed a charge of 10c. a mile for mileage covered in the performance of professional duties).
If Chauffeur is employed for business reasons, so that in the result he is substantially used for business purposes (although incidently used for personal or family use), the expense will be allowed.

(j) Proportional expenses of doctors practising from their residence—
(a) owned by the doctor;
(b) rented by the doctor;
(a) Where a doctor practises from a house which he owns and as well resides in, a proportionate allowance of house expenses will be given for the study, laboratory, office and waiting room space, on the basis that this space bears to the total space of the residence. The charges cover taxes, light, heat, insurance, repairs, depreciation and interest on mortgage (Name and address of mortgagee to be stated);

(b) Rented premises—The rent only will be apportioned inasmuch as the owner of the premises takes care of all other expenses.

The above allowances will not exceed one-third of the total house expenses or rental unless it can be shown that a greater allowance should be made for professional purposes.

(k) Sundry expenses (not otherwise classified)—
The expenses charged to this account should be capable of analysis and supported by records.

Claims for donations paid to charitable organizations will be allowed up to 10% of the net income upon submission of receipts to the Inspector of Income Tax. (This is provided for in the Act).

The annual dues paid to governing bodies under which authority to practise is issued and membership association fees not exceeding $100.00, to be recorded on the return, will be admitted as a charge.

The cost of attending post-graduate courses or medical conventions will not be allowed.

(l) Carrying charges;
The charges for interest paid on money borrowed against securities pledged as collateral security may only be charged against the income from investments and not against professional income.

(m) Business tax will be allowed as an expense, but Dominion provincial or municipal income tax will not be allowed.

PROFESSIONAL MEN UNDER SALARY CONTRACT

(3) The salary of professional men will be taxed without any deduction therefrom except as hereunder provided unless the individual is under contract which requires of him, in order to maintain his contractual position to operate a motor car of his own, in which case if the principal does not pay the upkeep, running expenses and depreciation, the individual will be allowed to reduce the salary by such expenses as the use of the car in the earning of his income may cost, on the same basis as above provided for, i.e. expenses and depreciation or alternatively 10c. a mile for mileage covered in the performance of professional duties.

The annual dues paid to governing bodies under which authority to practise is issued, and membership association fees, not exceeding $100.00 to be recorded on the return, will be admitted.