

In Reminiscent Mood

JOHN CAMERON

Emeritus-Professor of Anatomy, Dalhousie University

THE trials and tribulations of this Second World War have their compensations. One of these was the very pleasant letter received one Monday morning from Dean Grant of Dalhousie Medical School, inviting me to contribute an article to the NOVA SCOTIA MEDICAL BULLETIN. I gladly accede to his request, for it will provide me with a welcome opportunity to renew my friendship with former students now scattered widely throughout the province.

My first association with Nova Scotia began some years before the First World War, when three shy young men, H. B. Atlee, W. Alan Curry and H. G. Grant presented themselves to me for the purpose of joining my post-graduate class in Anatomy at Middlesex Hospital Medical School in London. I can vouch for the fact that they proved keen and earnest students, and were most grateful for any help or suggestions I could offer them in the furtherance of their studies. It is therefore most gratifying and indeed not surprising to me to know that all these gentlemen have attained to positions of eminence in their profession.

When one looks back across the vale of years, there are always outstanding features that specially impress themselves on one's consciousness. For instance I well remember the first meeting of my Anatomy class at Dalhousie, for I have to confess to the perpetration of a *faux pas* on that occasion. At the end of the lecture I was eager to know from which parts of the Maritime Provinces the students had come. In that class was Florence Murray, a member of that almost historic family from Prince Edward Island, which provided so many Dalhousie graduates. I inquired where her home was, and she said with obvious pride, "The Island." In my innocence I said, "Which Island?" She readily forgave me, and no doubt pitied me in her inner consciousness for my abysmal ignorance of local geography names. She proved to be one of my most loyal and diligent students.

The night of my first arrival in Halifax is still a vivid memory, for I was welcomed at the old North Street Station by my life-long friend Professor Fraser Harris, who was accompanied by President Stanley Mackenzie. Dr. and Mrs. Harris very generously invited me to be their guest until I could secure suitable accommodation. I cannot forget, far less repay the warm-hearted hospitality received at their home. Former students of Dr. Harris will be greatly interested to hear of the brilliant exploits of his son, Alec, in the present war. He is in the Fleet Air Arm, and shared in the destruction by bombing of an enemy cruiser off the Norwegian coast in April, 1940. Alec was at that time less than 24 years of age. He was shot down a few days later during a bombing attempt on another German ship off the same coast. By skilful handling, the plane made a successful landing on the sea, thus permitting Alec and his Observer to swim ashore in the icy water. They were rescued by friendly Norwegians, who provided them with old clothes, and buried their uniforms. They were guided through forests deep in snow for 70 miles to a point on the coast, where they were rescued by a British ship. Alec was enabled to glean very valuable information regarding the enemy's dispositions,

which he communicated to the authorities. His achievements were mentioned in Parliament by Admiral Sir Roger Keyes (now Lord Keyes), and earned for him the D.S.C. We have not seen Alec and his charming wife since they visited us in 1941. We were very much gratified to read recently in the newspapers that he had been appointed to the command of a Fleet Air Arm Training Station with the rank of Lt. Commander. We must all bow our heads in reverence to these brave young supermen of the Allied Air Forces, many of whom, well known to us, have already made the supreme sacrifice. They have shot the Huns out of the sky and off the face of the ocean which they have polluted and defiled so long with their presence.

I must now mention how my one and only salmon in Nova Scotia was caught, and thus get it off my conscience. My good friend Dr. John MacKay of New Glasgow, whom I will always bracket along with Dr. John Stewart as Princes among men, was determined that I should land one. For that purpose he took me to St. Mary's River. He caught his fish, and then declared that he would not return home until I had caught mine. I did so on the last morning of the visit, and felt as excited and as scared as the fish. I well remember feeling a deep sense of shame, for having removed such a beautiful silvery creature (a 19 pounder) from its native element.

One summer I was invited to a fishing expedition on the Margaree by Mr. Woodill, Superintendent of Education at Sydney, and his son, Roy, then and undergraduate in Arts at Dalhousie. One day I was fishing down stream, and was not getting even the suggestion of a nibble. Presently I saw a gentleman sitting on the bank with his line wound in and looking somewhat disconsolate, probably for the same reason. I also wound in my line, disclosed my identity to him, and asked him his name. He said "Joe Revere." "Any relation of Paul?" I inquired in a rather jocular manner, expecting him to say "No." Instead, he said, "Yes, I am direct descendant." It transpired that his sister was Lady Osler, wife of Sir William Osler the world-famous physician. We had a most delightful and enlightening talk, which amply compensated us for the want of nibbles. In a recent letter Roy Woodill informed me that Mrs. Chiasson, proprietress of Margaree Forks Hotel, was enquiring about me, thus showing that she could still maintain interest in the well being of her former guests after the lapse of many years—surely the perfect chatelaine.

On my arrival in Canada, I took over the command of Dalhousie O.T.C. from my great friend Colonel W. E. Thompson due to his elevation to a staff appointment. In the beginning of 1917, however, the supply of medical officers for the Canadian Army became acute, so Colonel Grant, the A.D.M.S. at that time, asked President Mackenzie's permission to transfer me to the R.C.A.M.C. for part-time duty. I was posted to Pine Hill Hospital of which Major Philip Weatherbe was O.C. The other member of the Staff was Captain McCurdy. When he went overseas later in the year I took his place as R.M.O. Our work was made pleasant by a spirit of friendly co-operation and good comradeship. When I last saw Dr. McCurdy after the war he was established in successful practice in Truro.

When Pine Hill College was taken over by the Military Authorities, the Rev. Dr. Allan Pollok, the Ex-Principal of the College, was allowed to retain his rooms, and we had our meals together. Each time he came into breakfast his first act was to produce from his coat pocket a homemade oatmeal bannock, evidently provided by some friend who knew Dr. Pollok's weakness for Scot-

and's national food. The old gentleman was then in his 89th year, but still retained to the full his rich store of pawky (an untranslatable word) Scottish humour. We had many delightful and illuminating talks together. One evening we were discussing various historical events. As the time wore on, he evidently thought that I had become a little too voluble in my utterances, for he said rather suddenly—"Cameron, you remind me of a palm tree." "Why is that?" I inquired. "Because you are so full of *dates*," he said. This act probably may have inspired him to present to me Gibbon's *Decline and Fall of the Roman Empire* in several volumes. He also gave me a fine old edition of Robert Burns' poems. I handed over the Gibbon volumes to my colleague Professor G. E. Wilson when I left Dalhousie. I have the volume of Burns still in my possession, with Dr. Pollok's signature and good wishes. I treasure it very much as a souvenir of a great and noble heart.

When I lived at The Birchdale I became very friendly with my neighbours Captain and Mrs. Critchley, the latter a daughter of Sir Sanford Fleming, the great engineer and Canadian railway builder. Dr. Pollok was also interested in the Critchleys, the reason for which you will see in a moment. I paid daily visits to Dr. Pollok on his deathbed during the summer of 1918. One day I could see that life was ebbing fast, and sat by his bedside expecting the end at any moment. I was suddenly startled by hearing him exclaim—"Have you seen Captain Critchley lately? It is now more than eighty years since I used to walk to school down the main street of Kennoway in Scotland with Sandford Fleming." He was dead within an hour or so. It has been stated that the early days of one's existence often become very vivid prior to death. My experience that day certainly confirmed this theory.

I shall never forget December 6, 1917, the day of the terrible Halifax Explosion Disaster. That morning I was engaged in the examination of a patient in my consulting room, and fortunately at the critical moment had just turned my back to the window. Suddenly without any warning the window blew in on my back, but the patient and I were quite unhurt. We owed our escape in no small measure to a few tall scented geraniums which were growing in the window. They were slashed to pieces by the flying glass, and the floor was strewn with soil and fragments of flower pots.

There was a definite interval of some seconds between the air displacement and the earth tremor. Then the whole building seemed to rock like a ship in a storm, the effect being most alarming for the moment. The whole incident was so sudden, that we all wondered what on earth had happened, the first impression being that we had been bombed. I went to the door, for it was a beautiful sunny morning, and saw an immense column of smoke, many hundreds of feet high, mounting upwards above the city of Halifax. It was thus obvious that a vast store of explosives had blown up. My first patient was Dr. Pollok. He had been sitting, fortunately with his back to the window, reading the morning paper, and sustained some superficial wounds of the scalp from flying glass. They soon healed.

A report was sent out (by whose authority I know not) that a second explosion might be expected at any moment. As many as possible of the population were therefore advised to move towards the southern areas of the city for reasons of security. The result was that our hospital was quickly swamped by crowds of injured people, and it was soon recognized that we were going to have a field day. Passes were issued to all convalescent soldiers in

the hospital who were able to find their way homewards, and thus release beds for the more gravely injured civilians. At this stage I must pay a well merited tribute to Matron Graham, who throughout that never-to-be-forgotten day gave me most valuable personal help, and was untiring in her efforts to make the patients as comfortable as possible. Mention must also be made of the grand work done by the Nursing Sisters and also the Orderlies who had, among many other duties, to nail army blankets over the window openings to keep out the cold, a very essential duty, as many of the patients were suffering from shock. Artificial light, which was fortunately available, had therefore to be used throughout the hospital in daytime, and increased our difficulties.

I wish I had kept a personal record of the number of patients that were handled that day. It must have run well into three figures. I started stitching wounds at 9.10 a.m. and did not finish until 7.30 p.m., working at full pressure all the time, with not a bite to eat since breakfast. At 3.30 p.m. the Matron pressed a welcome cup of tea to my lips. There was no time to wash my hands between operations. Strict asepsis was impossible and no anaesthetist was available. As most of the patients were suffering from various stages of shock, this seemed to produce Hypoaesthesia (if I may be permitted to coin a new word) which was most convenient for our purpose. My arms were stained with gore up to the elbows, my face and clothing were bespattered with blood. I must have looked like some fiend from the torture chambers of the Damned. I used the same treatment in every case—thorough washing with boric lotion, followed by warm boric compresses, kept moist with oiled silk. There was not a single case of severe sepsis among the patients, and the wounds healed remarkably well, considering the adverse conditions under which they were treated.

Space prevents me from speaking about many remarkable cases with which we had to deal, but one of outstanding interest must be mentioned. Two men brought a sack into the Hospital, and said that it contained an unknown child. They begged me to attend to this child at once, as they thought it was still alive. As I opened the sack, strings of coagulated blood stretched across from side to side. In the bottom was a mass of blood stained clothing, which we lifted out with great care. I had to look for some time before the child's face could be recognized, and at last found the reason. The scalp had been cut down to the bone from ear to ear across the summit of the head. The large frontal flap had become dissected forward as far as the supraorbital margins, and thus lay over the face. On lifting up this flap a spicule of wood was found imbedded in the right cornea. When this was removed, the aqueous humour squirted out, and the iris became prolapsed into the wound. Arrangements were made with an ophthalmic surgeon to perform an iridectomy a few days later. Another piece of wood was imbedded in the inner canthus, but as far as one could ascertain, it did not damage the lachrymal canals and the lachrymal sac. It is a wonder the child was not suffocated by the frontal flap, but it was a sturdy youngster of about 4 or 5 years of age. It was fortunately still alive, but was deeply unconscious from shock. The right ear had been cut in two, and half of it was detached forwards with the frontal flap. Quick purposeful decisions had to be made, owing to the condition of the patient. After cutting the hair and a thorough washing, the anterior flap was got back into position, and then stitching began. The repair of the

ear was the most trying job of all. I wish a record had been kept of the number of stitches put into that child's head! The usual warm boric compresses were applied, the child's clothes were removed, it had a good clean up and was then put into a warm bed. All its wounds healed almost by first intention, showing the advantage of dealing with young healthy tissue. The child lay unconscious for 4 days. On the 5th day I spoke to it as usual, to find if there were any reaction. This time the response was sudden, and rather different from what we expected—"Get away you dirty b———"

For many days afterwards I was kept busy removing pieces of glass, some of them quite large, from patients' bodies. At this point I wish to pay a tribute to the patience and courage of these civilians. They were one and all most grateful for anything that was done to them, and I never heard a single word of complaint. In my wildest dreams I never thought that I would ever have to stitch so much human flesh together. I felt that on December 6, 1917, I had really justified my existence, and amply fulfilled my destiny in this world.

Our holiday trip to Scotland in 1927 is still a beautiful memory. On board with us were Senator Ross and his wife with their daughter Ruth and also Professor George Henderson. When we were a day or two out, I asked George if he had met Ruth Ross. When he replied in the negative I expressed my surprise—"Do you mean to say you have never met her. Why she is one of the nicest girls in Halifax." I straightway effected an introduction. Towards the end of the voyage I noticed with no small gratification that Ruth and George had become convinced that exercise on the promenade deck was better made in company than singly. On the last day of the voyage they came to me separately, and conveyed their thanks for my introduction. In the following autumn George called on me, and said—"I have come to thank you for the wonderful present you have given me." "What is that, George"—I said in rather an innocent tone. "For having introduced me to my future wife,"—he replied. We have heard with much pleasure that they have now got a fine family. I trust that George and his wife will forgive this reference to a charming romantic episode. It was a great joy to us to learn the news that George had been admitted to the Immortals with his F.R.S. We were also much gratified to know that the King had honoured him with the O.B.E. in recognition of his valuable scientific contributions to the prosecution of the Second World War.

After giving up teaching I had two ambitions. The first was to write a book on the skeleton of Prehistoric Man. The only place in the world which contributed the essential materials for this purpose was the Royal College of Surgeons Museum in London. My life-long friend Sir Arthur Keith who was at that time Conservator generously granted me every facility, and I dedicated my book to him. As the necessary work was calculated to last at least three years, we bought a house in London. When the book was completed, we decided to move to Bournemouth. We ought to consider ourselves very lucky to have done so, for we heard from former neighbours that our house was the only one in that street hit by enemy bombs.

My second ambition was to take a world cruise with my wife, the avowed purpose being to study the manners and customs of the various races of mankind, and broaden our minds generally. Our Odyssey was made on that beautiful ship the Empress of Britain (now, alas, no more) from January to

May, 1937. Our adventures in Japan* have already been recorded in the *Dalhousie Review* (April, 1943) and it will be unnecessary to dilate further on these. Some of the names on the passenger list were evidently sent ahead to the next ports of call, for when we were half-way between Yokohama and Honolulu I was amazed and also deeply gratified to receive the following Marconigram "Are you the man that taught me Anatomy at Dalhousie University? If so, please reply, already prepaid, to Dr. Henry Dickson, Class '21, Kealakekua, Hawaii." I replied—"Yes, come and lunch with us on board at Honolulu." Henry sent a second message stating that he would come out to the ship on the port-doctor's launch. In my haste to send back the reply I forgot that Honolulu was on the island of Oahu 200 miles away from Hawaii. Henry handed over his practice to a neighbour, and with his wife flew to Honolulu. I had no difficulty in recognizing him even in the disguise of his tropical outfit. He came armed with the conventional leis which he placed round our necks, and then welcomed us in the most warm hearted manner. My lachrymal glands are very ready to work overtime on the slightest encouragement, and I must confess they did a little bit that time. Henry booked rooms in a hotel for himself and his wife, engaged a motor car for the period of our stay, and told us not to bother about the official excursions from the ship. In other words, he and his wife took complete possession of us. They showed us Pearl Harbour of tragic memory, Schofield Barracks nearby, and then took us through a sugar factory as well as a pineapple packing factory (Dole's)—both new and fascinating experiences for us. Space prevents me from referring to many other acts of kindness, but I was particularly gratified when Henry arranged for me to meet two more former students namely, Dr. Irwin (from Shelburne) and Dr. Chisholm (from Dutch Village). They both took up professional work in Honolulu, owing to threatened pulmonary mischief, and I was glad to be assured that their health and general well being were very good. This episode in our voyage has been described in some detail as a unique tribute to a former teacher.

When the ship berthed at New York I sent a wire to Dr. D. W. Hoare (Class '21) inviting him to have dinner on board, and he very kindly came all the way from Philadelphia to see us. We had a most pleasant evening, and he contributed much fresh news about the other members of his Class. We told him of our remarkable meeting with Henry Dickson. I was sorry to learn that he had not yet taken the important step to matrimony.

At New York my wife and I were invited to broadcast our impressions of the cruise from the radio station at the top of the Empire State Building. My wife went on the air first, and at the close of her broadcast she announced, "Now that you have visited all these wonderful countries, tell your unseen audience which country you love best." She almost shouted into the microphone—"Scotland forever!" We have often wondered since then, how many of our audience had known the very critical moment in the history of the British Empire and of the world in general when that famous battle cry was uttered. I was thrilled by my wife's stirring response and felt a very proud man at that moment, but I had a notion that amends would have to be made for my wife's patriotic outburst. The opportunity came at the end of my

*An account of our experiences in Italy in 1939 was published in the *Dalhousie Review*, October, 1933

broadcast, when the announcer asked "In which of the countries visited did you see the most beautiful women?" I said—"In the United States of course."

On both our visits to New York my wife and I failed to see Hubert Lyons, who used to produce such sweet notes on the clarinet, though I got in touch with him by phone on our first visit in 1929. The informal clarinet and piano recitals by us on Sunday afternoons at The Birchdale were much appreciated by the boys. My wife and I were both deeply shocked when we heard of the tragic and very untimely death of his beautiful bride on their honeymoon. Marjorie Egan was a very gifted cellist, and her contributions to the musical life of Halifax will always be remembered by us with pleasure and gratitude.

Talking of music reminds me that Bruce Archibald (Class '21) and I used to participate in the musical evenings in the old Munro Room by contributing piano duets. Those were the days when the orchestral accompaniment to a cinema picture was a piano, usually played rather mechanically. One evening he and I thought we were doing fine, when we heard a voice in the front row "This reminds us of the movies!" We did our practices on Saturday afternoons in my room at The Birchdale which was across the hall from that occupied by Mrs. Geoffrey Morrow. One Sunday morning I was going up to my room after breakfast, when I found Mrs. Morrow speaking to Mrs. Sandy Stepnen on the landing. Mrs. Morrow turned to me and said—"You ruined my nap yesterday afternoon with your piano playing. I never heard such a d. row in all my life!" Without answering, I said to Mrs. Stephen—"How did *you* like our music?" "I loved every note of it," she said. This was my answer to Mrs. Morrow, so I went straight into my room, as further comment was unnecessary. Mrs. Morrow and I were always good friends in spite of her musical criticisms. Bruce and his wife and their two fine boys, David and Willie visited us in London in 1932, and they were delighted to be motored round the English countryside, with its picturesque villages.

While we were still in London, we were honoured by a visit from Dr. and Mrs. Henry Munro. Henry as an educationist was eager to see Harrow School, so we motored them there one afternoon. We secured a very efficient and informative guide, who showed us the famous Speech Room. We were particularly interested to see the chairs on the platform bearing the names of famous Harrovians who had gifted them. We went to the old churchyard on the summit of the hill to point out the tombstone, on the flat top of which the poet Byron, while at Harrow School, used to recline, and feast his eyes upon the famous view. I believe I am right in saying that some of the inspiration for his *Hours of Idleness* was obtained on that spot. I am sorry to say that the once "famous view" has been destroyed by the London octopus which now stretches its tentacles far beyond Harrow. The way in which a hideous modern gasometer over 200 feet high has been allowed to spoil this beautiful pastoral scene is particularly regrettable. It is common knowledge that Harrow School has had its quota of bombs. The enemy is no doubt gloating over this with unusual satisfaction, as one of the most eminent of living Harrovians is Winston Churchill.

One of the advantages of this Second World War was, that it provided opportunities for very happy reunions between former students and myself. In January, 1943, Colonel N. M. Halkett the Commandant of No. 7 Canadian General Hospital, wrote to say, that he had several former students on his staff who had expressed a wish to see me again. He went on to explain

that a three day Clinical Meeting was to be held, and offered me accommodation at the Hospital. The journey was a very round about one, which took me most of the day. It was a great pleasure to be welcomed on arrival by Lt. Colonel Don Campbell (Class '31), Major C. M. (Tabby) Bethune (Class '31), Major J. F. (Fabie) Bates (Class '26), Major Harry O'Brien (Class '27), Major (now Lt. Colonel) Ian Macdonald (Class '30), Major C. M. (Charlie) Jones (Class '30), Major B. F. Miller (Class '31), Captain (now Major) Miller MacKay (Class '33), Captain (now Major) C. G. Houston (Class '34), Captain (now Major) M. J. Chisholm (Class '34) and that smiling optimist Major Allanach, R.C.A.D.C. (Class '33). It was also a great joy to find my friend Lt. Colonel Ted Sieniewicz on the staff, looking as youthful as ever. I also met the following officers who entered Medicine after my time—Major L. G. Holland (Class '35), Captain (now Major) J. B. Macdonald (Class '37), Captain (now Major) J. A. Muir (Class '36), Captain (now Major) R. G. Lea (Class '38), and Captain (now Major) J. A. F. Young (Class '36). By a strange coincidence, the meeting was to be addressed by Colonel Cutler, Consulting Surgeon to the U. S. Army, whom I met at Cleveland, Ohio, in 1926, when staying with my life-long friend Dr. Wingate Todd, Professor of Anatomy at Western Reserve University. We had a most enjoyable chat about mutual friends we had known there. The boys gave me a most cordial welcome, and we had many reminiscences to discuss, and laugh over. They did not hesitate to remind me of some of my mannerisms and idiosyncrasies as a teacher, which created much laughter. I was indeed sorry to part from such good company and such kind and faithful friends. They only released me for my homeward journey by extracting a promise that I would make a return visit at an early date. A few days after the visit I received a letter from Colonel Halkett in which *inter alia* he said "It was a very great joy for all of us to have you visit our Hospital, and I was indeed glad to meet you personally. It must be a great satisfaction to you to see so many of your old students doing so well. They are a grand crowd of boys, and I am very proud to be associated with them. Every one of them has the very highest regard for you; and I am sure you not only taught them Anatomy very thoroughly, but you also had a very great influence for good, when they were in your care."

The promised visit was made in June, 1943. During this visit Colonel Montgomery, a medical specialist (from Montreal) and Colonel Macfarlane, a surgical specialist (from Toronto), both of whom I had met before, arrived for their routine visits. Major Bethune and (I think) Colonel Sieniewicz drove the three of us one day to Stratford-on-Avon to witness a fine performance of *The Merry Wives of Windsor* at the Memorial Theatre. (My wife and I had already seen performances of *Julius Caesar* and *King Lear* on a visit to the Stratford Festival in 1932.) We were struck by the very large proportion of American Officers, N.C.O.'s and other ranks in the audience. Prior to the performance we made the pilgrimage to Holy Trinity Church to see Shakespeare's tomb and the birth and death entries in the ancient parish register.

In February, 1944, I received an invitation from Colonel Ronald Forbes O.C. of No. 9 C.G.H., and Lt. Colonel Ian Macdonald to visit them. They made me most comfortable in their house on the grounds of the Hospital. They drove me to a Clinical Meeting at No. 10 C.G.H., as it was to be attended

by former students from other hospitals. A photo of the group was taken, and I felt like a hen with her brood around her—an old hen, but a very proud one. I met there Captain Worrell who entered Dalhousie Medical School after my time. When he heard who I was, he told me that my name had become a Legend in the Medical School. This is one of the best compliments I have ever had paid to me, coming as it did from an utter stranger. At No. 9 I daily visited Reg, younger brother of Charlie Baxter. He was being treated for synovitis of the knee. We had a card last Christmas (1944) from Charlie, together with a brief note stating that he now had a family of six. We had a visit in Halifax in 1929 from him and his attractive wife and their eldest child, then an infant. I always said that Charlie Baxter was one of the nicest boys who ever passed through my Department—he was always smiling, always cheerful.

On returning home from that visit an invitation was awaiting me to make a third visit to No. 7 C. G. H. The Hospital had moved south to the famous Astor estate at Cliveden on the Thames, and was now under the command of Colonel Victor Mader. I went there in April, 1944, and Victor gave me very pleasant accommodation in his house. Viscountess Astor took a very substantial interest in the Hospital, and when she heard of my visit she invited me to luncheon one day along with Lt. Colonel Campbell and Major Bethune. She proved a very kind and gracious hostess. Her forceful personality frequently asserts itself in the British Parliament, where she is M.P. for Plymouth. I was most interested to be told that we were having our meal in Madame Pompadour's own dining room. When the present mansion was erected by a former Duke of Sutherland in 1851 he got possession of Madame Pompadour's dining room, including all its furnishings, and incorporated it in the building. I therefore no doubt sat on a chair that had frequently been occupied by Pompadour herself or even by Louis XV of France, when he was dining with his "friend." No wonder there was a French Revolution in 1789, for it was long overdue.

In the picture gallery of the mansion I was shown the portraits of the Duke of Buckingham and of the Earl and Countess of Shrewsbury, who were participants in the famous duel which took place in the grounds of Cliveden. It is mentioned in Pepys' diary, and the exact spot is shown by the date 1668, which is cut out on the turf of the lawn, and decked with plants. The Countess, disguised as a page boy, held the Duke's horse during the duel, and afterwards rode away with him, leaving her husband dying on the lawn.

Lord Astor was absent from home on the day of the luncheon, but they both came one evening to a cinema display, and I had a very nice chat with him. He told me what a pleasure it was to him to have No. 7 C.G.H. on his estate. Charlie Jones gave me a very fine collection of photos of Cliveden mansion and gardens, which I will treasure always. Victor Mader gave a mess dinner in my honour with all the "frills." In my subsequent speech I got a welcome opportunity to thank him and also W. Alan Curry and dear Gerald Grant for the very valuable voluntary services they accorded me as Demonstrators at Dalhousie over a long period of years. I also gave them an account of the adventures of my wife and myself in Nazi Germany in 1935. This was published in the issue of the *Dalhousie Review* for October, 1944. On returning home from each of the visits to No. 7 C.G.H. it was found that the boys had stuffed into my suitcase various delicacies their folks had sent

to them from home. The young rogues! God bless them. I had no idea that such close bonds of affection could exist between a teacher and his students. We shall always remember with feelings of the deepest gratitude the numerous gifts of food, entirely spontaneous and unsolicited, which were sent to us by friends and former students in Canada and the U. S. A. during this Second World War. In fact Gordon Bruce that husky boy from Shelburne was so lavish with his contributions from New York, that we had to beg him to stop. In Gordon's last letter he told us that he had joined the U. S. Navy, with the rank of Surgeon Lt. Commander. The latest word of him was that he was chasing Japs along the beaches in the S. W. Pacific. It is a little discourteous and ungenerous to discriminate between the various donors, but I may be forgiven for specially mentioning Stewart Woolner (Class 33) that tall stalwart man from Prince Edward Island. In September, 1934, he and Bob Baird, younger brother of Harold, spent a week-end with us. We hear regularly from Bob who has been on surgical duty in Scotland during the war. Stewart was on the staff of St. Mary's Hospital in Portsmouth during the very devastating air raids on that town during 1940 and 1941. I felt so anxious about him, that I asked a messenger to enquire at the Hospital, if he were safe. I was glad and also relieved to receive an answer to the effect that he was safe and unscathed. He apparently appreciated this gesture, for he has at various times sent us presents of dried fruits, lemons and oranges from Italy where he is at present on medical duty with the Canadian Army.

I observe from our visitor's book that we have had visits from 17 Canadian and 17 American boys up to date since this war began. They all appreciated coming into a private home and also our modest efforts at entertainment due to restricted supplies and the lack of domestic help. In October, 1944, we had a visit (the second) from George, eldest son of Professor A. G. Nicholls. He is a lawyer and is a Judge-Advocate in the R.C.A.F. He had come here to conduct a trial. By a remarkable coincidence, the defending Counsel in this case was John E. Friel, a former student of mine. He is from a legal family in Moncton, and decided to transfer from Medicine to Law. They both visited us on the night before the trial. Friel told us some anecdotes about the Anatomy Department, a few of them against me, which created much mirth. We had a most happy evening together. On one occasion we invited two American officers, a Major and a Captain, to spend an evening with us. I was showing them our snaps of Vienna, and when the Major saw the Imperial Palace he said that his father was Court-Pianist to the Emperor Francis Joseph, the Ex-Kaiser and the Czar of Russia, and spent several years in Vienna, Berlin and St. Petersburg. Next day we received a joint-letter from these two officers, and readers will perhaps forgive me if I quote part of it—"The hospitality which you extended, the friendly atmosphere of your home are things we shall always remember about England. After meeting good people as you, we can readily understand why Great Britain is such a wonderful place." We also had letters written in a similar vein from some of the other boys.

One evening last year an American General gave a dinner party, followed by a cinema display, to a large party of local ladies as a mark of appreciation for many acts of kindness to his troops. I had the privilege of being the only man invited. The General is the bearer of an honoured Scottish name. That

is perhaps the reason why he asked my wife and myself to sit on either side of him at dinner. We were very glad to be assured by him that the U. S. Army Authorities are most grateful for the hospitality offered to their troops by the civilian population of Great Britain. He made a very graceful speech of thanks, and the very pleasant duty of replying was undertaken by me.

During this Second World War we who live on the south coast of England have been literally in the front line trenches. After the fall of France air operations began to become much livelier in our area, as one can well imagine. During the winter of 1940-41 the siren sounded almost every evening after dusk, and we could soon hear the drone of the enemy bombers streaming over the town on their way to attack objectives farther inland. We must say that, comparatively speaking, not many bombs were dropped on this residential town. The thuds of the bombs gave me a most unpleasant feeling in the cardiac region. The worst feature was, that there were no effective means of retaliation during these early days, and we all felt so helpless, but none the less resolute. It seemed to us that most of the bombing in this area was indiscriminate, possibly bombs dropped by a raider trying to escape from a night fighter. For example, bombs were dropped in the main cemetery on two separate occasions, and caused some involuntary resurrections. One day in 1941 my wife saw a day raider dart out of the clouds, and after passing over our road it released two bombs. They just missed a school in which 200 children were having their lunch. They had a miraculous escape, apart from shock and injury due to flying glass.

In 1940 our two piers were stripped of their concert pavilions and other buildings leaving only the deck planks. The landward ends were then blown up to prevent the use by the enemy of these piers as landing points. Their isolated seaward portions must have looked at night from above like aircraft carriers at anchor in the bay. At least that is what they must have appeared to one night raider, for it dropped huge mines by parachute which fell wide of the mark. One hit the face of the East Cliff, and fairly shook us up. We thought the seaward side of our house was being blown in, but our only damage consisted of cracks in the ceilings. Thanks to steel window frames and small panes, no glass was broken. This episode had its humorous side, for the enemy communique stated that one of their bombers had sunk an aircraft carrier in our bay, and that the crew had been awarded the inevitable iron crosses for their "exploit." The "aircraft carrier" is still there and quite unscathed. In the summer of 1942 a day raider flew over the trees surrounding our house. We were in the garden, and my wife waved to it, not knowing it was an enemy. Almost immediately we heard a terrific crash, and found that a bomb had demolished the whole wing of a large hotel in the next road. The lady in the house opposite us was sitting sunning herself on her verandah at the time, and was knocked backwards heels over head by the blast. We suffered no damage, as all our windows were open, and we were protected by the thick screen of trees.

We had the worst day raid in May, 1943, when 24 planes came over. Our house was machine gunned, but we got under cover in time. (The other night (Jan., 1945) we were disturbed by a rattling on the roof, followed by a crash on the pavement behind the house. It was evident that one of the damaged tiles had become detached.) One raider which was shot down that day fell on a fine house a few doors along this road, and the building was soon

burnt out. The bomb from this plane fell in a garden, but did not explode. A large part of this road had in consequence to be evacuated for two days until the bomb disposal squad could deal with it.

During the weeks prior to D Day enemy air activity at night over our coast became much intensified for obvious reasons. We had very frequent alerts, and had often to spend part of the night in a shelter trench. One night there were three alerts. The crimson tracer shells from the anti-aircraft batteries and the massed searchlights made a marvellous firework display, and formed a minor compensation for hectic nights. One night we saw a raider shot down in the sea amid loud cheers. One warm summer night I slipped my bare feet into bedroom slippers, and went out to the East Cliff, a few paces away, to see the "show" along with some neighbours. Presently we heard a well known voice in the darkness—"John, you have forgotten to put on your socks," which goes to show how well my wife looks after me. Our general health has kept good throughout the war in spite of many moments of anxiety. None of these flying bombs have come too near to us so far. We will be everlastingly grateful to the Americans for driving the enemy out of the Cherbourg peninsula, which is only 60 miles due south of us. The enemy had concrete platforms almost completed there for the purpose of launching these missiles which would soon have obliterated us. Yes, we are paying a heavy penalty for letting these enemies of civilization off far too lightly after the last war. They know they have lost this one also, and are now venting their silly spite on the civilian population of Southern England. If they think, they can win this war by terrorism and by killing many innocent people, they are making a vast mistake.

On November 14, 1944, I was summoned to a meeting of the Empire Universities' Bureau on which I represent Dalhousie, to be held in the Euston Station Hotel in London. A few days prior to that meeting there was a report in the newspapers issued from "Goebbel's Lie Factory" to the effect that Euston Station had been destroyed by flying bombs. It did not even show a scratch, but I saw some of the damage in other parts of London—not very pretty sights.

Canada's contribution to this Second World War will go down in history as one of its greatest achievements. It was with special pride that we read of the brilliant naval action in which Captain Grant, son of Mrs. MacCallum Grant, participated over a year ago, when a strong force of enemy destroyers was very decisively defeated in the Bay of Biscay. In writing my congratulations to Mrs. MacCallum Grant I expressed the wish that His Honor had still been alive to take a justifiable pride in his brave son's prowess. In another part of this article I have expressed my gratitude for the very valuable assistance I received from Dr. Gerald Grant as a Demonstrator in my Department. It was a great privilege to know the Grant family from whom my wife and myself received many acts of kindness.

Recently we had a letter from Professor Ralph Smith which filled us with apprehension for he told us that George Covert (Class '34) had developed a tumour, which would necessitate an operation. George spent holidays with us in 1935 and 1936, when he was over here doing post-graduate work. However, this news had a happy sequel, for on Sunday last (Feb. 11, 1945) an R.C.A.F. officer (Mr. Mac Anderson, from Campbellton, N. B.) who had

just arrived from Canada, brought us a personal message from George giving us the glad news that the tumour had been successfully removed.

In a communication such as this, consisting entirely of reminiscences, the personal EGO is difficult to eliminate. I will therefore close by offering apologies to readers in the words uttered by Prospero at the close of his immortal address—

Bear with my weakness; my old brain is troubled;
Be not disturb'd with my infirmity:

The Tempest, Act IV, Sc. 1

*A Preliminary Report of Two Cases of Early Syphilis Treated by the 5-day Massive Intravenous Arsenotherapy Method

Edwin D. Levittan M.D. C.M.

Introduction

THE genesis of the rationale behind this treatment took place in 1931 when Hirshfeld, Hyman and Wanger¹ described the phenomenon of "speed shock" in animals. The reactions like nitroid crises, hemoclastic, colloidoclastic and anaphylactoid reactions were thought to be due to the rapidity with which drugs entered the body and overwhelmed it producing manifestations as mentioned. They demonstrated that the slow introduction of the same drugs in a continuous intravenous drip at say 60-90 drops per minute obviated all these phenomena. Large amounts of highly toxic substances could be given with no ill effects.

In 1932 Dr. Louis Chargin of the Mount Sinai Hospital in New York suggested that arsenicals might be able to be so used in the treatment of syphilis and in 1933 such an experiment was tried at the Mount Sinai Hospital on Dr. George Baehr's service by Drs. Chargin, Leifer and Hyman.² In the Series 1, 25 cases of early lues were treated with 4-4.5 gms. of neoarsphenamine given over a period of 5 days by means of a slow intravenous drip daily for 10-12 hours. This amount would ordinarily be given in 3 months. After a 5 year period 15 of the patients were still under observation and 12 showed negative serology, and no symptoms, while a 13th after being negative for 3 years got himself reinfected, so that actually 13 could be considered cured. The remaining 10 were lost track of. There was another case of reinfection, and also a hospital orderly who treated himself with Bi. besides, and both of these were recorded as failures.

Series 2, comprising 86 patients was next done with a cure of 86%.³ In the fall of 1938, after a death, haemorrhagic encephalitis, neoarsphenamine was discontinued, and mapharsen used.

Series 3, comprising 265 patients was then begun using the mapharsen. The percentage of cure was about 81%.⁴ Looking in retrospect at the results, one felt justified in giving the treatment a trial.

Technique

The Baxter vacolters containing 10% glucose in physiological saline were used. The contents of 2 ampoules of 0.06 gm. of mapharsen were dissolved in a liter flask. A bit of the solution was withdrawn from the flask after removing the aluminum and rubber seal, and it was then emptied into an opened ampoule, allowed to stand for a few minutes, then aerated, and drawn up into the 2 c.c. syringe used for the purpose, and finally slowly emptied into the flask. The entire contents of the vacolter were then shaken up using the sterile rubber seal to plug the holes. The needle, adapter head, tubing, and drip bulb were then assembled and after removing the air from the tubing, the 20 gauge 1½" needle was inserted into a suitable vein. The latter was very securely fastened with adhesive right around the arm, and then the patient

*Delivered at the annual meeting of the Nova Scotia Provincial Association of Medical Health Officers, White Point Beach, N. S., July 4, 1944.

was allowed to slowly turn the hand in, so that the palmar surface rested against the thigh. At first I had the hand with the palm up, but the arm was almost paralysed for 24 hours, after changing the position, with the palm in, there was no further discomfort on this score. In order that the forearm could be turned, it is necessary to choose a vein between wrist and elbow. Alternate arms are used each day so that the arm of a previous day's treatment may be rested. By the 4th day, the long saphenous vein had to be used in both of my cases, as the patients became careless, and when the nurse left the room moved about in the bed too much. I have been considering in the future to use a slightly smaller gauge needle as there would be less trauma to the inside of the vein, or possibly to use a gold needle in the long saphenous vein, and letting 500 c.c. of unmedicated solution run in through the night. In one case I had to cut down on the latter mentioned vein, in the other case it was not necessary.

The amount of mapharsen called for is 0.24 gm. daily, but if the temperature 101.4° is reached, the treatment for that day is discontinued. This happens usually between the 6th and 8th hours, and by then the patient has received between 0.12-0.16 gms. of mapharsen. To compensate for this the dosage for the 2nd, 3rd, and 4th days, is stepped up to 0.28 gms., and on the 5th day it is 0.24 gms., so that the total still reaches the prescribed amount of 1.2 gms. Such was the case with the first patient, and for the sake of uniformity of treatment, I decided to do the same with the second. The solution was run in at the rate of 40-60 drops per minute. I slowed the rate as the original technique called for a faster delivery, because we were using but 2,000 c.c. for 0.24 gms. instead of 2,400 c.c. Actually on the 2nd, 3rd, and 4th days they were receiving 0.28 gms. in 2,500 c.c.

We used Aspirin Co. with Cod. gr. $1/8$ th for pain in the arm, and sometimes if this were not sufficient, resorted to straight Codeine, gr. $1/2$ plus compresses.

The nurse at our Red Cross Hospital kept an hourly check of temperature, respirations, and pulse throughout the treatment period daily. She also made up the solutions as they were required through the day. I kept pretty close to town through the 5-day period, as often she would call for resetting of the needle. Likewise I would run down to the Hospital several times each day, in addition to always going in the morning to set the apparatus running.

The patients were allowed to eat as much as they pleased, they usually feed themselves, and in the evenings after the needle was withdrawn, were allowed to get up for a while. Both of them gained 10 lbs. during the treatment, and pretty evenly made the gain at the rate of 2 lbs. per day.

Daily urinalysis was done for albumin, urobilinogen was not done, as I did not have the reagent at the time, but subsequent check of this was normal.

Icterus index of both patients was between 4-6 at beginning and termination of treatment.

In addition, the following routines, (for which details see below) were done. Blood urea nitrogen, R.B.C., and W.B.C. counts, complete physicals, serological checks, and Sp. gr. of urine were done before and after treatment.

Case Reports

On January 14, 1944, Mr. and Mrs. R. W. came into my office. Mr. R. W. had a typical penile chancre; Mrs. R. W. had a "sore" on the external labium according to her own statement sometime about the middle of

December of the preceding year, 1943. Mr. R. W. had had a blood test taken in early January which was reported negative. A repeat test was then taken, and sent to the Public Health Laboratory in Halifax, and both reports came back positive. Treatment was started on Mr. R. W. on Jan. 23rd, and completed on Jan. 27th. The reports of the blood tests to date are as follows (except for the first test, all Kolmer-Wasserman findings are reported quantitatively).

Jan. 15, 1944.....	Kolmer-Wasserman—	positive
Feb. 8, 1944.....	“ “	—4444
Mar. 7, 1944.....	“ “	—32000
Mar. 21, 1944.....	“ “	—1±±±±
Apr. 13, 1944.....	“ “	—00000
May 10, 1944.....	Blood test	—negative
	(Communication, Dr. Arbuckle)	
June 17, 1944.....	Kolmer-Wasserman—	00000

Mrs. R. W. was not treated until April 5, 1944, as we had used up all of our vacoliter flasks and it was difficult to get delivery quickly in the winter months. Her blood reports follow. It is interesting to note that we had a report on her blood on November 21, 1941, which happened to have been done in the office in the course of a routine check-up.

Nov. 21, 1941.....	Kahn reaction	—negative
Jan. 15, 1944.....	Kolmer-Wasserman—	positive
May 18, 1944.....	“ “	—4441
June 2, 1944.....	“ “	—4444±
June 13, 1944.....	“ “	—44431
June 29, 1944.....	“ “	—44410

In addition a C.S. fluid was taken on April 19, 1944, on which the Komler-Wasserman was negative, in the case of Mrs. R. W. One of the children's blood was Kahn negative on Jan. 25, 1944, and the other child was Kolmer-Wasserman negative, and the presumptive Kahn was also negative.

I still do not despair of Mrs. R. W. becoming seronegative, as Craig and Sadusk³ had several patients experience their reversal after 6 months, and in any event the whole treatment could be repeated if the Kolmer-Wasserman titre shows a tendency to stabilize.

The blood urea nitrogen of Mr. R. W. was 14 mg. before treatment, and 12 mg. after; Mrs. R. W. was 11 mg. before, and 15 mg. after. The urine Sp. gr. in both cases was rather low, usually about 1.002-1.008, however, they were being pretty well flushed each day, and after 2-3 days the concentration came up readily on the night specimens. The R.B.C. counts showed a slight drop in the case of Mr. R. W. from 5.1 million to 4.25 million, and Mrs. R. W. was 4.25 million before and after. The W.B.C. counts were uninterestingly normal and remained so. Hb. likewise showed no significant alteration.

Public Health Viewpoints

In the space of 3 years and 8 months, 249 blood tests have been taken in my office, this represents actually 225 patients, of which 26 patients were found to be positive. The yearly breakdown of these figures would be as

was allowed to slowly turn the hand in, so that the palmar surface rested against the thigh. At first I had the hand with the palm up, but the arm was almost paralysed for 24 hours, after changing the position, with the palm in, there was no further discomfort on this score. In order that the forearm could be turned, it is necessary to choose a vein between wrist and elbow. Alternate arms are used each day so that the arm of a previous day's treatment may be rested. By the 4th day, the long saphenous vein had to be used in both of my cases, as the patients became careless, and when the nurse left the room moved about in the bed too much. I have been considering in the future to use a slightly smaller gauge needle as there would be less trauma to the inside of the vein, or possibly to use a gold needle in the long saphenous vein, and letting 500 c.c. of unmedicated solution run in through the night. In one case I had to cut down on the latter mentioned vein, in the other case it was not necessary.

The amount of mapharsen called for is 0.24 gm. daily, but if the temperature 101.4° is reached, the treatment for that day is discontinued. This happens usually between the 6th and 8th hours, and by then the patient has received between 0.12-0.16 gms. of mapharsen. To compensate for this the dosage for the 2nd, 3rd, and 4th days, is stepped up to 0.28 gms., and on the 5th day it is 0.24 gms., so that the total still reaches the prescribed amount of 1.2 gms. Such was the case with the first patient, and for the sake of uniformity of treatment, I decided to do the same with the second. The solution was run in at the rate of 40-60 drops per minute. I slowed the rate as the original technique called for a faster delivery, because we were using but 2,000 c.c. for 0.24 gms. instead of 2,400 c.c. Actually on the 2nd, 3rd, and 4th days they were receiving 0.28 gms. in 2,500 c.c.

We used Aspirin Co. with Cod. gr. $1/8$ th for pain in the arm, and sometimes if this were not sufficient, resorted to straight Codeine, gr. $\frac{1}{2}$ plus compresses.

The nurse at our Red Cross Hospital kept an hourly check of temperature, respirations, and pulse throughout the treatment period daily. She also made up the solutions as they were required through the day. I kept pretty close to town through the 5-day period, as often she would call for resetting of the needle. Likewise I would run down to the Hospital several times each day, in addition to always going in the morning to set the apparatus running.

The patients were allowed to eat as much as they pleased, they usually feed themselves, and in the evenings after the needle was withdrawn, were allowed to get up for a while. Both of them gained 10 lbs. during the treatment, and pretty evenly made the gain at the rate of 2 lbs. per day.

Daily urinalysis was done for albumin, urobilinogen was not done, as I did not have the reagent at the time, but subsequent check of this was normal.

Icterus index of both patients was between 4-6 at beginning and termination of treatment.

In addition, the following routines, (for which details see below) were done. Blood urea nitrogen, R.B.C., and W.B.C. counts, complete physicals, serological checks, and Sp. gr. of urine were done before and after treatment.

Case Reports

On January 14, 1944, Mr. and Mrs. R. W. came into my office. Mr. R. W. had a typical penile chancre; Mrs. R. W. had a "sore" on the external labium according to her own statement sometime about the middle of

BIBLIOGRAPHY

1. Hirshfeld, S., Hyman, H. T., and Wanger, J. J.: Influence of Velocity on response to Intravenous Injections, *Arch. Int. Med.* 47: 259, 1931.
2. Chargin, L., Leifer, W., and Hyman, H. T.: Studies of Velocity and Response to Intravenous Injections: Application of Intravenous Drip Method to Chemotherapy as Illustrated by Massive Doses of Arsphenamine in Treatment of Early Syphilis, *J.A.M.A.* 104: 878, 1935.
3. Hyman, H. T., Rice, J. L., and Leifer, W.: Massive Dose Chemotherapy of Early Syphilis by Intravenous Drip Method, *J.A.M.A.* 113, 1208, 1939.
4. Leifer, W., Chargin, L., and Hyman, H. T.: Massive Dose Arsenotherapy of Early Syphilis by Intravenous Drip Method; Recapitulation of the Data (1933 to 1941) *J.A.M.A.* 117: 1154, 1941.
5. Craige, B., Jr., and Sadusk, Jos. F.: Observations on the Massive Dose Arsenotherapy of Early Syphilis by the Intravenous Drip Method, *New Eng. Jour. of Med.* 230: 314, 1944.
6. Rice, John L.: Conference on Massive Arsenotherapy in Early Syphilis by the Continuous Intravenous Drip Method, *Arch. of Derm. and Syph.* 42: 329, 1940.

The Advantages of Early Treatment of Strabismus in Children

E. I. GLENISTER, M.D.

Resident Ophthalmologist, Toronto General Hospital

THE majority of the readers of this article will be men engaged in general practice and it will be these men who will be approached in most cases by those in care of children for advice and guidance in the proper procedure or care in cases of strabismus or squint.

The first thing is to determine whether the child has a strabismus, this can be quickly decided by a very simple test which I will discuss later.

Next, if there is a squint what advice to give to people about these children.

I think at this point a short explanation of some of the terms commonly used in connection with strabismus will be of benefit, and help give a better understanding of this subject.

By the term strabismus I mean the deviation of either eye from the normal parallel position of the eyes as seen in the primary position or eyes front position. The deviation may be in toward the nose, convergent strabismus or esotropia; out toward the lateral corner of the eye divergent strabismus or exotropia; or in a vertical direction so that one eye is higher than the other hypertropia. It may be a monocular type or an alternating type, affecting both eyes equally.

The deviation or squint may be comitant, that is the same in all directions on moving the eyes, or it may be paralytic, in which certain muscles or one muscle is involved and the squint is only seen, or is most marked in the direction of the line of action of the involved muscle or muscles.

The commonest type seen in children and the one which is most important from the viewpoint of early treatment is the comitant convergent strabismus. This type is associated usually with diminution of visual acuity usually more pronounced in the squinting eye and a disturbance of the accommodation convergence relationship.

The two eyes are so related in their movements that one is never moved independently of the other. The associated muscles of both eyes react simultaneously upon one impulse, so that an innervation in one eye is always accompanied by an innervation in the other eye. It can be assumed that this important principle is congenitally fixed. At birth the infant possesses only the power of conjugation of the two eyes in vertical movements; conjugation of horizontal movements is perfected within the first few months of life, but does not become stabilized before 12-18 months.

The fusion faculty or fusion sense which is necessary for binocular vision is not developed until later, usually by the sixth year. Towards the end of the first year the eyes will make a considerable effort toward binocular vision. Fusion is present in all normal individuals; it may be weak or inactive as in monocular squint; but if present in any degree after correction of the deviation, and after improvement of central visual acuity it may be restored to normal, and full or partial binocular vision results.

In other cases, less frequently, the fusion faculty is absent—seen quite often in the true alternating strabismus. In these cases it is impossible to have fusion and binocular vision.

Fixation is the maintenance of a position in which the retinal images fall upon the fovea, which is the most sensitive part of the macula. The child first fixates and follows a moving object visually at 5-6 months—small objects are not examined minutely before 20-24 months.

Suppression is a physiological inhibition of the retinal image. The process of visual interpretation or "seeing" takes place in the brain. Here the visual images of the two eyes are fused. Anything which makes fusion difficult such as difference in sizes of the visual images associated with uncorrected refractive errors or disturbance of the accommodation—convergence mechanism, results in suppression of the image of the more defective eye, that is the eye with the lowered visual acuity. Usually the macular image is suppressed at first, then as time goes on the suppression becomes habitual and amblyopia or very low visual acuity results. Frequently the suppression may be overcome by occlusion of the non-suppressing eye. However this is not permanent unless the factors causing the suppression are removed. Suppression amblyopia affects children under six or seven years. In association with strabismus the amblyopia is deeper the earlier in life squint commences. It is considered as a reliable inference based on experience and observation that if a child has been squinting over half its life and has an amblyopic eye, that useful vision cannot be attained in this eye with any form of treatment; the best that one can get is a cosmetic result.

A test which is quite simple to use and fairly accurate and by which one can detect very quickly if the child has strabismus, is the corneal light reflex. It consists of directing a not too bright light (a small flash light or a small light such as the exposed light in the ophthalmoscope) towards the child's face at about 18-20 inches distance. The child, no matter how young, will usually look towards the light and fix it. Notice the position of the light reflex in the pupillary opening of each eye, if equidistant or equally centered in the pupillary opening, it is a fairly reliable test that at that time there is no squint. When the corneal light reflex is seen more temporally in the pupillary opening of one eye it is probably a convergent squint; if the light reflex is more nasally in the pupillary opening, it is likely a divergent squint; when the light reflex is lower in one pupillary opening than the other it is hypertropia.

Commonly, especially in an infant a few months old, the base of the nose is quite broad and this will seem to encroach on the palpebral opening and simulate a squint, the corneal light reflex will very definitely show if this is the case.

The parents may tell you, that even though you have not found evidence of squint, that at times, especially when the child is tired, that they have noticed a deviation affecting either, one or both eyes at varying times. In such cases if the child is under a year old, it may simply be instability which will be overcome with growth; however such a case should be seen about every three months and if there is still this tendency present after the 18th month, it should be investigated as an early strabismus. A great many of these varying types will clear up, with improvement of stability with their natural growth, and the beginning development of fusion.

In cases which are definitely found to have squint, it is important that there should be a careful refraction under cyclopegic, to determine if there is a refractive error—the type and amount. The youngest age at which this is practical, is a year and a half to two years old.

The reason for the insistence on early refraction is to overcome or prevent the development of suppression amblyopia and so encourage binocular vision which is an important step in the curing of early strabismus. The proper glasses should be ordered and worn, being held in position quite well with a simple band and heavy frame. The child should be observed regularly and after 6-8 weeks if the refraction has shown a difference in the strength of the glasses, the eye which is the stronger or dominant, usually the non-squinting eye should be occluded totally and seen every week for a month. This patch should then be removed and atropine used in this eye over a period of a month. This routine should be carried out under observation over a period of six months or as long as there is improvement; if after this time there is no improvement, the question of surgery to secure results must be considered.

A large number of children thus treated will be cured before school age—however owing to their refractive errors they should continue wearing their glasses owing to their visual defect and also to prevent a return of their squint. Children who are alternators—that is squint with either eye regularly, and their refractive error is very slight or none at all; these should be treated surgically at about the third year. It is doubtful whether most of these have fusion or will ever develop fusion. However if the cosmetic result is secured, some of these do develop binocular vision, proving that there must have been latent fusion; others of this group can be given orthoptic treatment at six or seven years and even younger if the child is cooperative, and some of these will develop binocular vision.

In a strabismus which has been neglected until after the sixth or seventh year the prognosis for developing binocular vision, even when the eyes have been straightened, either by glasses or surgery, is not good—the sooner after three years of age, treatment is started, the better the prognosis. It is suggested that strabismus in children be treated before starting to school.

The prevention and correction of strabismus are extremely important both to the child and the community as a whole. The hardships or disadvantages from the presence of the squint are: lack of binocular vision, amblyopia or loss of useful vision in one eye, the cosmetic appearance, the psychological handicap from the presence of the squint often manifested by an inferiority complex and general retardation; the social and economic handicaps, as many industries require good binocular vision.

The objections to the early treatment are the danger to small children from wearing glasses so young and the difficulty in having children so young keep them on; however this danger is more anticipated than real. Examination of the cases admitted during the past two years at the Hospital for Sick Children, Toronto, with eye injuries did not reveal one case under seven years which was due to their wearing glasses. The experience over the past number of years at the above mentioned institution in regard to keeping the glasses on has been quite satisfactory, it is found this is largely a family problem and the majority take care of it, however there are a few where they cannot be adjusted to wearing glasses until older. Another objection is the dangot

of the anaesthetic, this is of no more consequence than in tonsil and adenoid operations or circumcision. Also if an operation is performed early the eye may turn out, later on in life. A few years ago when the surgical treatment consisted of doing tenotomies this was a real objection; however the surgical treatment of these cases to-day has changed considerably and to-day this objection is no longer a consideration.

The teaching and opinion to-day is, that strabismus in children should be seen early and have their treatment well established during pre-school years. The ideal time being between the second and third years, to be followed as soon as possible, depending on the child's cooperation, by orthoptics in those cases where it is indicated.

In concluding I would list the advantages of early treatment of strabismus under the following headings, that is in cases seen about the second year or very soon after.

- (1) A large number will be cured by wearing proper glasses.
- (2) Another group will be cured by the wearing of proper glasses and occlusion methods.
- (3) Another group will be cured by the wearing of proper glasses, occlusion and proper surgical procedures.
- (4) Another group will get a good cosmetic result from surgery and later some of this group will develop fusion and be cured, and others by means of orthoptics (musele training) will obtain binocular vision and a cure.
- (5) Another small group known as alternators, will secure a good cosmetic result by means of surgery; these do not get binocular vision owing to the fact that they were born without a fusion centre or fusion faculty.

BIBLIOGRAPHY

- Morgan, A. L. Surgical treatment of Strabismus. *The Canadian Medical Association Journal*, 45, 500-504, 1941.
- Sugar, H. S. The Extrinsic Eye Muscles.

Abstracts From Current Literature

THIRTY DAY MAPHARSEN TECHNIC IN SYPHILIS. Goldblatt, S.: Arch. of Derm. and Syph., 1944, 49: 403.

Goldblatt gave 60 mg. of mapharsen intravenously dissolved in 5 cc. of sterile distilled water for thirty successive days. A total of 1,800 mg. of mapharsen was thus administered without adjuvant therapy. An unselected group of 107 patients with syphilis of all types was treated by this intensive consecutive thirty day mapharsen method. The serological reactions, which were positive in 81 per cent of the total group before treatment, showed a decided and continuing reduction in titer. On termination of the treatment positive serological reactions were noted in 55 per cent, two months later in 35 per cent. Follow-up investigation from three to six months after the treatment indicated that the reactions of 20 per cent remained positive. No significant changes were observed in the formed or chemical constituents of the blood. Electrocardiographic examination of the cardiovascular system indicated no progressive or toxic sequelae. Retreatment was carried out for the 3 patients with serologic relapse. Two with severe meningovascular involvement were subjected to fifteen attacks of induced fever concurrent with the hyperintensive therapy without untoward reaction. It was found possible to administer sulfonamide compounds for the treatment of intercurrent disease without interrupting the intensive mapharsen therapy. Complete healing of all the lesions of infectious syphilis required an average of ten days. A gain in weight and increased appetite and feeling of well-being were noted in the large majority of patients. No mucocutaneous relapse or neuro-recurrence developed. This therapy appears to be nontoxic. Hospitalization is not required; the treatment is inexpensive and does not disrupt the economic life of the patient.

MEDICAL TREATMENT OF PULMONARY EMBOLISM. Beckwith, J. R.: Virginia Med. Monthly, 1944, 71: 296.

Beckwith shows that the classic picture of pulmonary embolism is not difficult to recognize. When a patient who has been lying in bed sits up or strains at stool and suddenly becomes dyspneic and develops severe substernal pain, pallor, sweating, weak, rapid pulse and low blood pressure, the diagnosis is obvious. At times the symptomatology may be bizarre. Pneumonia, pleurisy or progressive heart failure may be suspected. The finding of a hitherto unsuspected thrombosis of a deep leg vein may be a lead. X-ray examination may also be helpful. Characteristic electrocardiographic changes often occur. Careful clinical examination of the patient is very necessary, and detection of signs indicating pulmonary hypertension and right ventricular failure is important. When an acute episode occurs and the diagnosis of pulmonary embolism is made, therapy should be immediately instituted. This should be directed at relieving the anoxemia by the administration of oxygen in high concentration and simultaneously making an effort to reestablish the impaired circulation. The latter can be done by the administration of atropine 1/50 grain (0.0013 Gm.) and papaverine 1/2 grain (0.032 Gm.) intravenously. Then

atropine and papaverine should be given every four hours. The response is often dramatic, and a patient who looks moribund may be "responsive" in a short while. The heart rate becomes slower, blood pressure rises, the heart sounds become louder and the colour improves. During the past two years the author has seen 3 cases of pulmonary embolism shortly after the condition occurred. All were treated as described and all obtained dramatic relief following the initial attack. Two died later with subsequent attacks and one recovered completely. It is probable that, had the focus of the embolus been found, the latter episodes could have been prevented.

HEARTBURN. Alvarez, W. C.: *Gastroent.*, 1944; 3: 1.

Alvarez summarizes the results of questioning 123 persons with heartburn. The sensation consists of a burning and sometimes painful or rending distress, which begins usually under the lower end of the sternum and sometimes runs up as far as the pharynx. It tends to come in spells, and there are many curious and inexplicable features about its comings and goings. It does not appear to be due to any known organic disease of the digestive tract. At least 17 of the patients had or had had ulcer, but, curiously, when the ulcer was active and they had hunger pain, they were free from heartburn. The symptom, therefore, did not seem to be produced by the ulcer. Heredity is sometimes a factor. Seventy-three per cent of the patients were men. Many of the patients suffered with regurgitation and belching, and these symptoms were occasionally associated with the heartburn, apparently only when the esophageal mucosa had been sensitized. When the esophagus was normal, regurgitation of acid gastric contents did not cause burning. Immediate causes of heartburn are eating too fast or too much or eating certain goods such as fats, coffee, onions, seasonings, radishes, tomato, orange, egg, cucumber, chocolate, peppers and cabbage. Alcohol and tobacco can be important factors, as can be emotion. Lying down or bending or exercising may bring on heartburn. The degree of acidity of the gastric contents is apparently not important, and heartburn can trouble persons with achlorhydria even to histamine. Three of the patients studied had cancer of the stomach. Sodium bicarbonate commonly gives relief, partly through neutralizing acid in the esophagus and the stomach and partly by causing waves of reverse peristalsis to run out and stop coming. The evidence obtained in this study fits with that obtained by experimenters and suggests that heartburn is due largely to regurgitation into a sensitized esophagus and partly to reverse waves of peristalsis coming up from the stomach.

EARLY AMBULATION FOLLOWING ABDOMINAL SECTION. Nelson, H.: *Arch. of Surg.*, 1944, 49: 1.

Nelson reports observations on 426 personally conducted cases. As soon as the patient has fully recovered from the effects of anesthesia, the bed is sharply tilted, so that the head is elevated. After this position has been maintained for a time the bed is levelled and the patient assumes a sitting position on the side of the bed, with the feet resting on a chair. In this position he breathes deeply and coughs frequently. He then lies down, and the head of the bed is again sharply elevated. After a second period of rest he is assisted

to stand and is conducted to the bathroom, where the bladder is practically always emptied without difficulty. If his condition is good, he sits up in a chair for a time before returning to bed. Those who are oversensitive to the pain of the first rising or who are unduly apprehensive are made to practise sitting at the edge of the bed, with intervals of rest after each attempt, until they are strong enough and willing to walk to the bathroom. The majority of patients walked on the day of operation or within the first twenty-four hours. The incidence of immediate and delayed complications in this series was minimal. Of the three partial disruptions of a wound two occurred in patients whose wounds had been closed with catgut and for whom early ambulation had not been authorized. Only two incisional hernias were observed. The single fatality in the series was due to cerebral thrombosis. Good results depend on the strict observance of contraindications as well as of indications. Contraindications to early ambulation are: 1. Failure to observe the prerequisites of optimum healing of wound, including failure to carry out the tenets of Halsted as to the closure of a wound, the use of suture materials other than wire or cotton and the existence of deficiencies of vitamins and hypoproteinemia. 2. Conditions such as shock, peritonitis, active hemorrhage, cardiac failure, pneumotis and impending or actual thyroid crisis. 3. Potential or actual complications, including gross contamination, infection, hemorrhage and dehiscence. 4. Pregnancy in which abortion is feared. 5. Extreme debility, for which ambulation is deferred until there is some restoration of strength and muscle tone, as a result of sitting up. 6. Second stage of a thoracolumbar sympathectomy, after which the patient, because of sudden alterations in the vascular system, cannot immediately tolerate the upright position. 7. Lack of adequate and intelligent nursing supervision. The advantages of early ambulation include the lowered incidence of postoperative complications, particularly pulmonary and vascular complications; the lowered incidence of nausea, vomiting and abdominal distention; the earlier return of normal function of the bladder and the bowel; the maintenance of normal muscle tone; the psychologic effect on the patient's morale and mental status; the acceleration of convalescence and the earlier return of working ability, and the economic savings to the patient and the hospital.

TUBERCULOUS MENINGITIS. McMurray, J.: *Arch. of Disease in Child.*, 1944, 19: 87.

McMurray investigated two aspects of tuberculous meningitis: (1) the question why it does not arise in every case of tuberculous bacilleamia and (2) with what frequency the bovine type of tubercle bacillus occurs in tuberculous meningitis. Eleven patients with tuberculous meningitis were examined to determine the pathogenesis of the condition. It appeared that tuberculous meningitis commonly arises as a result of the extension into the subarachnoid space of a focus in the meninges or in the juxtameningeal tissues. This focus is blood borne and may or may not be one of the foci of miliary tuberculosis. Cerebrospinal fluids from 26 cases of tuberculous meningitis have been examined. Tubercle bacilli were found microscopically in 20 and strains have been isolated in 24. Of the 24 strains isolated, 7 were of the bovine type and the other 17 of the human type. All the bovine strains occurred in the 20 children under 15 years of age. The source of infection with the bovine strains could not be established.

RH FACTOR IN OBSTETRICS. Krieger, Vera: *Med. Jour. of Australia*, 1944, 1: 480.

Krieger reviews work on the Rh factor carried out at the Women's Hospital in Melbourne. Rh blood tests were made on the blood of all pregnant patients whose previous history had shown evidence of miscarriage or stillbirth. Four hundred and eighty-six such patients were tested between May and October, 1943, and 101 (21 per cent) were found to have Rh negative blood. The author reviews the results of tests for Rh antibodies during and after delivery on mothers with negative Rh blood. With regard to the frequency of erythroblastotic children from mating of persons with Rh positive and Rh negative blood, the author finds that not all the babies of a mother with Rh negative blood and a father with Rh positive blood have Rh positive blood. Since the Rh factor is transmitted as a mendelian dominant, the fate of the children depends on the father's being homozygous or heterozygous for the factor. Furthermore, not every mother with Rh negative blood will produce isoantibodies to the Rh factor, and the amount of antibodies formed in any one pregnancy varies considerably. The mildest form of erythroblastosis, the hemolytic anemia of the newborn, may not be diagnosed as such unless attention has been directed to the possibility of its presence. Mild forms of erythroblastotic icterus neonatorum may be classified as a rather severe ordinary icterus neonatorum if no special investigations are made. Although nothing can be done to prevent the action of Rh substance from the baby from producing Rh antibodies in the mother, or the passage of these antibodies through the placenta into the fetal circulation, the testing for the Rh factor and for Rh antibodies is necessary for several reasons, for instance, for proper blood selection, should either mother or child require a transfusion. The Rh factor should be investigated not only in women whose past history suggests the occurrence of erythroblastosis but in all women attending antepartum clinics at maternity hospitals. The question of the production of sufficient suitable typing serum is all important. Many difficulties are experienced in obtaining blood from the patients, even when a high titered serum has been detected. There is the fact that the titer of antibodies usually decreases rapidly. This necessitates the taking of blood from the patient within a week or two after her confinement. The patient or her doctor may object to this. There is also the question of variability of titer and "polyvalence" in serum from these patients.

ONE DAY SULFONAMIDE TREATMENT OF CHRONIC GONORRHEA IN THE FEMALE.

Strauss, H., Goldstein, S., Horowitz, E. A. and Meyer, E.: *Amer. Jour. Obs. and Gyn.*, 1944, 47: 838.

Strauss and his associates state that beginning in January, 1943, patients sent to their service at the Kingston Avenue Hospital with a culture report positive for the gonococcus were given sulfonamide medication routinely for only one day. A complete history, physical and gynecologic examination, complete blood count and urine analysis were first recorded. Patients were confined to the hospital but were ambulatory. They were on a general hospital diet. Fluids were forced before, during and after chemotherapy, the average intake being over 2,000 cc. The day preceding the administration of the sulfo-

namide each patient was given 32 Gm. of sodium bicarbonate. The first group of 96 patients was given sulfadiazine 6 Gm. during a single day—half at 9 a.m. and the other half at 3 p.m. An equal amount of sodium bicarbonate was administered at the same time. The second group of 97 patients was treated identically except that 8 Gm. of sulfadiazine was administered during one day. The third group comprising 88 patients was given 8 Gm. of sulfathiazole in the same fashion. In all cases cultures and spreads were taken from the urethra and cervix (Skene's and Bartholin's, when indicated) the day following treatment and once or twice weekly during their hospital stay. The patients were examined gynecologically each week by the resident staff and also by the visiting staff working independently. The period of observation following chemotherapy averaged thirty days. The administration of sulfadiazine or sulfathiazole during a single day to hospitalized women with cultures positive for the gonococcus was followed by the disappearance of gonococci in 86.6 to 90.9 per cent of the cases. There was no significant difference of results following 8 Gm. of sulfathiazole, 8 Gm. of sulfadiazine or 6 Gm. of sulfadiazine. There was a difference in response of patients of the Negro and white races, the failures being three to four times greater in the white race. The authors are not ready to advocate the general use of the "one day treatment" of gonorrhoea and believe that it should be used only for hospitalized patients when time is at a premium.

E. DAVID SHERMAN, M.D.

Abstract Editor

Society Meetings

Halifax Medical Society

The annual meeting of the Halifax Medical Society was held April 25th. at the Nova Scotian Hotel, when the following officers were elected. President, Dr. N. H. Gosse; Vice-President, Dr. J. C. Acker; Secretary-Treasurer, Dr. R. O. Jones; Executive, Dr. H. W. Schwartz, Dr. J. R. Corston, Dr. A. R. Morton and Dr. A. G. MacLeod of Dartmouth.

Cape Breton Medical Society

The annual meeting of the Cape Breton Medical Society was held at the Royal Cape Breton Yacht Club, Sydney, Thursday, May 10th. Guest speaker for the meeting was Surgeon-Lieutenant E. J. Delorme, Surgical Consultant R.C.N.V.R., on the subject "New Method of Controlling Post-Operative Pain." The speaker dealt with the use of intravenous novocaine and related personal experiences with this new use for the drug. The paper was very well presented and was followed by a discussion period.

The retiring President, Doctor H. R. Corbett, Glace Bay, was in the chair and concluded his term of office with a very appropriate address on the past year's activities. During the address he paid special tribute to those members who had passed away during the past year, and a one minute silence was observed in their honour. Names of deceased members:—

Dr. T. F. Meahan, Glace Bay.

Dr. H. E. Kendall, Sydney.

Dr. W. F. Rice, Sydney.

Dr. P. McF. Carter, Sydney.

The nominating committee brought in the following slate of officers for the coming year which was unanimously ratified by the meeting.

President—Dr. J. S. Munro, North Sydney.

Vice-President—Dr. H. R. Ross, Sydney.

Secretary-Treasurer—Dr. F. J. Barton, New Waterford.

Executive—Dr. J. A. McDonald, Glace Bay; Dr. H. J. Devereux, Sydney;
Dr. A. C. Gouthro, Little Bras d'Or.

Representatives on the Executive of The Medical Society of Nova Scotia—
Dr. M. G. Tompkins, Dominion; Dr. W. T. McKeough, Sydney
Mines; Dr. M. J. Macaulay, Sydney.

F. J. BARTON, M. D.,
Secretary-Treasurer.