

Abstracts

THE LARYNX BY INJECTION

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The method described here of dealing with Laryngeal Tuberculosis, Chronic Laryngitis and Pharyngitis is widely used in India, for the treatment is simple, cheap, and easy to administer.

The majority of patients treated for pulmonary tuberculosis in the Indian service suffer from severe cough with some vocal failure. Laryngoscopic examination show a red, irritated pharynx and larynx, often without ulceration, which produces dysphonia and dysphasia.

Alleviation of the symptoms is by the following treatment:

Technique: Injection of the interior of the larynx with one in sixty carbolic solution underneath the mucous membrane, where it diffuses into the surrounding tissues. The dose is usually one-half c.c.

The solution used is:

Acid carbolic $\frac{1}{2}$ drachm.

Glycerine 2 drachms.

Sterile water 4 ounces.

Planocaine may be added as required before injection.

The injection is made under aseptic precautions, by passing the needle through the skin over the notch of the thyroid cartilage, then advancing the needle along the inner surface of the thyroid cartilage for about half an inch, so that the point of the needle rests in the submucous tissue close to the ventricle of the larynx. The dose is injected and the needle withdrawn. Both sides of the larynx can be injected in this manner.

To inject the extrinsic portions of the larynx, the arytenoids, epiglottis and ventricular fold, the throat may be cocaineized, and a finger passed down to guide the passage of the needle and prevent piercing of the mucous membrane.

This treatment requires only a few injections. The cough, dysphonia and dysphagia disappear very rapidly.

The method of treatment is based on the principle that surface applications do not affect disease deep to mucous membranes. The principle is borne out in cases of tuberculous ulceration of the larynx, where the ulcers healed rapidly when the injections were made below the surface of the mucous membranes. Similar treatment with equal success has been carried out in tuberculosis of the bladder and in ulcerations of the rectum.

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DIRECT DRAINAGE OF LUNG CAVITIES IN PULMONARY TUBERCULOSIS

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Direct drainage of lung cavities, introduced by Prof. Monaldi of the Forlanini Institute in Rome, offers interesting possibilities in the treatment of pulmonary tuberculosis. The method and theory of direct drainage are based on conclusions drawn from Prof. Morelli's work on the mechanics of respiration.

Cavitation in a lung depends on two factors: biological and mechanical. As the initial tubercles in bronchioles and alveoli coalesce, they form consolidated areas, which, if the process is not arrested, break down into caseous areas with cavity formation. If the biological factor predominates, the caseation becomes more extensive, and clinical signs such as fever, cough, and sputum present themselves. If the mechanical factor predominates, quite extensive cavitation may occur in individuals showing little or no clinical evidence of disease. These cases are picked up by radiological means.

A lung cavity is subjected to traumatism in the process of respiration, unless it is drained by a large bronchus. If there is no drainage bronchus, or if the bronchus is plugged by secretions, there is considerable difference in the intracavernous pressure during inspiration and expiration. As this appears to be the case in most cavities, the result is a pericavernous atelectasis of gradually increasing extent. The so called "fibrous ring" surrounding a cavity is relatively healthy lung tissue, and often described in X-rays, appears, from autopsy evidence, to represent atelectatic tissue and not fibrosis.

A cavity, if it is to close, must be possessed of some retractile quality. The pericavernous atelectatic tissue appears to answer this need. The disappearance of a cavity treated by artificial pneumothorax, maintained at negative pressures, may well be due to re-expansion of collapsed alveoli. The collapse therapy aims at elimination of trauma due to respiration, which appears to be the great factor producing pericavernous atelectasis.

Cavities with the mechanical factor predominating have a retractile quality, in contrast to those with a predominant biological factor.

The direct drainage of a cavity in pulmonary tuberculosis attempts to combat the mechanical factor in cavitation by

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producing a negative intracavernous pressure, thus allowing the pericavernous atelectatic tissue to re-expand. It combats the biological factor by removing the inflammatory matter and debris, thus cleaning the walls of the cavity.

DRAINAGE TECHNIQUE: The lung must be adherent to the parietal pleura in the region of the cavity, so that the process of drainage will not cause a pleuro-pulmonary fistula. The position of the cavity, and the site of entry are determined by careful radiological examination. The latter must be such that a recumbent position can be maintained afterward. The intercostal space is anaesthetized at the chosen point and a long fine needle is passed through to ascertain the position of the cavity. The direction of the needle can be controlled by fluoroscopy. The fine needle is withdrawn and

a trocar introduced along the path. A cannula is inserted and the trocar withdrawn. A suitable catheter is introduced and left in position when the cannula is removed. The catheter is fixed to the chest wall and covered with a dressing.

Aspiration is begun in twenty-four hours, a filter pump connected with a manometer being used. The initial pressure must be very low, and the increase gradual. The cavity slowly closes and the drain is removed when the cavity is nearly closed. Final obliteration of the cavity usually will not take place till the drain is removed. The period of drainage usually lasts three to six months.

The results obtained on the cases tried were very remarkable. The efficacy of this treatment as regards permanent closure cannot be estimated without a longer period of observation.

CASE REPORTS

TWO CASES OF ECTOPIC GESTATION

(Presented with the permission of the staff of the Prince Edward Island Hospital)

CASE I.

Mrs. M., white, female, aged 40 years.

Admitted to hospital December 29, 1940, for diagnosis.

COMPLAINTS:

1. Pain in abdomen.
2. Fainting attacks.
3. Nausea and vomiting.

HISTORY: In the latter part of November, 1940, patient was seized with a sharp stabbing pain in the right side of the abdomen. She fainted at once and again an hour later. She became nauseated and vomited several times. The next day she began to "menstruate" and she had what she described as a normal period, the discharge stopping after 5 days. Though she did not feel entirely well at any time, having some lower abdominal pain and discomfort daily, she carried on till December 6, 1940, at which time she had another "period" which lasted 8 to 10 days and was associated with much crampy lower abdominal pain. On December 23, 1940, she again began to bleed p.v. and this continued for 5 days to December 27. For the first time the patient admitted that the discharge was not like her usual, being thicker in consistency, dark brownish in color, and scanty in amount. On December 28, she had a very severe attack of pain in her right lower abdomen. She had much nausea and vomiting and a feeling of extreme weakness though she did not faint. By December 29 the pain had spread over the whole abdomen and she was so tender that she could not bear the weight of the bed-clothing.

MENSTRUAL AND OBSTETRICAL HISTORY:

Periods began at age 13, 5/28 day type. Always regular.

Patient has had 9 pregnancies, all normal in every respect.