CLINICAL NOTE.

ARTIFICIAL CEREBRO-SPINAL FLUID.

Two or three years ago I experienced a small run of cases of otitic meningitis which were treated in the usual way by drainage with considerable success. Thinking over the fatal cases, it occurred to me that for purposes of lavage of the cerebro-spinal spaces and cavities an artificial cerebro-spinal fluid ought to have preference over the usual normal saline, as the latter is apparently a fluid foreign to these regions.

Unfortunately—or fortunately—I have not since had an opportunity of trying the fluid, and as some efforts are now being made to treat epidemic meningitis by lavage, it may be well to publish the constitution of the fluid we employed.

The following, then, is the formula; it was prepared for me by Dr. Wyatt Wingrave:

Potassium chloride	3·5
Sodium chloride	1·5
Potassium carbonate	0·2
Glucose	2·0
Distilled water	100·0

This forms a stock solution, from which the fluid for use (sp. gr. 1002) is made up as follows:

Stock solution	10
Sterile distilled water	90

Care must be taken in sterilising, as boiling the salts-glucose solution decomposes the glucose. For that reason, in making the stock solution, the salts should be dissolved in the water and the solution boiled before the glucose is added to it. I know of no method of sterilising the glucose itself.

In any event, it is advisable to have the stock solution freshly made for each case and its dilution effected in the operating theatre.

This fluid does not, of course, contain any of the internal secretions with which modern research is acquainting us, such as those of the pituitary gland, and time and experiment are needed before one can say how much pituitrin, if any, should be added to the solution.

Dan McKenzie.

SOCIETIES' PROCEEDINGS.

PROCEEDINGS OF THE AMERICAN LARYNGOLOGICAL ASSOCIATION.

Held at Washington, D.C., May 9, 10, and 11, 1916.

EMIL MEYER, M.D., Abstract Editor, New York.

(*Continued from p.* 72.)

Sore Throat Clinically Considered.—Samuel Johnston (Baltimore). In the clinical study of "sore throat" we should scan the physiognomy of the patient, mark well any changes in the voice tones, and note the odour of the breath before entering into a more detailed examination of the case.

https://doi.org/10.1017/S1755146300017212 Published online by Cambridge University Press

Among the conditions causing changes of the voice may be mentioned paralysis of the soft palate, defections in the conformation of the palatine arch, swollen tonsils, benign and malignant growth in the nasopharynx, laryngeal inflammations, paralysis, and so forth.

The odour of the breath may call attention to such conditions as uremic poisoning, pulmonary gangrene, ozæna, necrosis of the nasal bones, and so forth. The need of careful inspection of the lips, gums, teeth, tongue, palate, pharynx, naso-pharynx, lingual tonsils, epiglottis and larynx is emphasised.

In examining the naso pharynx an ulcer, usually of an infectious nature, is found here when least suspected, and in infectious diseases sore throat is by no means uncommon.

The writer's experience has proved that diseases of these regions differ in no way from similar pathologic changes in other parts of the body and should receive the same therapeutic and surgical treatment.

Conservative and mild measures, however, should be the rule and guidance.

Dr. Lewis A. Coffin: As we grow older I think we all get to such a position where we feel that perhaps as younger men we interfered too much with the architecture of the upper air passages.

The Diagnosis and Management of Vaso-motor Disturbances of the Upper Air Passages.—J. L. Goodale.—In a large proportion of vasomotor diseases of the upper air passages the disturbances are dependent upon the entrance of a foreign proteid into the system. The method of entrance may be through contact of the proteid in question with the mucous membranes of the respiratory or of the gastro-intestinal tract, by inhalation or ingestion, respectively. Foreign proteids may perhaps also develop in or upon these mucous membranes through autolysis of pathogenic or saphrophytic bacteria. The application of the skin test to these conditions is of diagnostic value when employed with a recognition of the phylogenetic relationships of animals and plants as determined by studies in serobiology.

Proteid material for testing should be prepared both from the keratin and sera of domestic animals, from the pollen of the chief causes of hay fever, and from the various articles of food which enter commonly into the diet. Bacterial proteids derived from the various invaders of the respiratory tract should be available, either in solution or in the soluble form.

When the skin reactions to the various classes of proteids have been determined, the management of cases will depend largely upon the relative preponderance of the local reactions in relation to the clinical history. If the cause is found to be seasonal, as in hay-fever, immunising treatment by injection of pollen extracts is likely to prove of service. The sensitisation returns during the following winter, and treatment must probably be repeated annually. If the cause is perennial and is due to inhalation of foreign proteids, it is wiser to avoid the cause rather than to seek to effect a cure by immunisation. If the disturbing proteid enters into the ordinary articles of diet, a tolerance may be gradually established by feeding the substance in progressively increasing doses. Disturbances of bacterial origin have not yet been sufficiently studied to enable the formulation of a definite plan of treatment, but the results of these investigations confirm our present methods of treatment, and emphasise the importance of draining regions which can

https://doi.org/10.1017/S1755146300017212 Published online by Cambridge University Press

retain the products of bacterial activity. Septic foci should be removed. Vaccine therapy is likely in such anaphylactic cases to be more accurately guided than in the ordinary individual.

Dr. JOHN F. BARNHILL: I would just like to ask one question with regard to whether the matter has been brought down to a working basis. For instance, if a patient comes to Dr. Goodale, what plan does he adopt for determining what the sensitisation may be? Has he come to any conclusions?

Dr. ROBERT LEVY: We were very much stimulated by Dr. Goodale's work last year. I should like to ask him two questions. First, what is his mode of procedure when we have a multiplicity of sensitisations? I would like to have that more at length. And secondly, having determined for a certain individual his sensitisations to a number of proteids or inhalations (I have particular reference to inhalations), what method does he proceed with in the treatment of these individuals?

Dr. HANAU W. LOEB: I would like to ask Dr. Goodale to tell us if lactate of calcium and calcium chloride salts have, in his experience, had the effect of reducing the sensitisation,

Dr. J. L. GOODALE: If I had read the whole of my paper, all of these questions would have been answered. Answering the first, as to how we proceed, I think the best plan is this: See whether the symptoms are present throughout the year, or whether they come at a definite time. If seasonal, they are probably due to something in the air; most commonly, of course, pollen. If they may occur at any time during the year, we inquire as to whether they stand in relation to colds or conditions of acute infection of the bronchial tubes. If you see the individual is entirely well throughout the summer and winter, and once in the fall or spring has a severe cold and develops asthma, we can, under those circumstances, rule out cases of foods that he takes into the stomach, and also rule out the question of animals; consequently, it is one of these other products. On the other hand, it may not be fully a seasonal infection in that it may come in November or January, or at whatever time it may be, and in that case I should proceed to investigate with special reference to bacterial proteids, and look for those organisms that we know may invade the mucous membranes of the upper air tract. Now, if the symptoms are throughout the year, without much influence from season or travel, or various modifying circumstances, I should look for asthmatic animals—especially in the case of children—cats and dogs. Children don't know cats or dogs trouble them, but they may have asthma entirely due to that. I have a recent letter from a man whose daughter had been the victim of asthma when four or five years old, who looked like a little old woman. It was really pathetic. I found it was due to nothing but the cat, and we kept the cat away. The little child has now resumed the bloom of youth, and the parents are very greatly gratified.

That is the manner in which you proceed. You bring the season the occurrence, the incidence and mode of development of the symptoms into relation with the patients, and that simplifies it very much indeed. The use of lactate of calcium and the chloride has made no material difference.

Angioma of the Larynx.—Emil Mayer.—This affection is of very rare occurrence, the writer having found only forty recorded cases in the world's literature. He presented the history of a woman, aged fifty-two,

https://doi.org/10.1017/S1755146300017212 Published online by Cambridge University Press

who had a history of previous attacks of laryngitis with hæmoptysis, and who had a tumour in the larynx on the left side, extending from the left false cord and covering the true cord on that side. The diagnosis of cancer of the larynx had been made by laryngologists who had seen her previously. The patient was admitted to Mount Sinai Hospital, and the writer asked to report upon her condition, and remove a portion of the growth for diagnosis, if necessary. Owing to the yeilding character of the growth, its bluish tinge, and the history of previous bleeding, the diagnosis was made of angioma of the larynx by Dr. Mayer. Removal of a portian for diagnosis was deemed too dangerous, and external operation was advised. This was subsequently performed by Dr. C. A. Elsberg. The growth was removed, the mucous membrane sutured; and the pathologist reported it to be a hæmangioma. The patient made an uneventful recovery. The writer concludes that angioma of the larynx is a rare disease, occurring mostly in adults, the proportion of males to females being about four to one. It may be mistaken for cancer. Endolaryngeal removal, even of a portion of the growth, for diagnosis is fraught with danger, while laryngofissure is entirely safe and feasible.

Dr. HENRY L. SWAIN: If Dr Mayer wants another case simply to bear out what he said about the danger in these cases, I might mention one in which I attempted to remove a growth of this kind. We got hæmorrhage all right. If anything further was needed to substantiate the diagnosis, the microscope did. I have a slide at home showing it to be true angioma of that type. I am interested to hear what Dr. Lynch thinks he could do with such a case by suspension.

Dr. ROBERT CLYDE LYNCH: I have never had an opportunity of seeing one of these cases, and have, therefore, had no personal experience with them. I think, however, that if it were possible to get underneath the place, and if the surface was not too broad and the position properly localised, it might be possible to do it under suspension. However, that could be decided at the time the case presented itself. After seeing the illustration of the size and site of this angioma, I would not attempt its removal under supension.

(*To be continued.*)

THE AMERICAN LARYNGOLOGICAL, RHINOLOGICAL, AND OTOLOGICAL SOCIETY.

Meeting at Chicago, June 15 *and* 16, 1915.

(*Continued from p.* 135.)

A Report of a Collective Investigation on the Curettement of the Eustachian Tube in Chronic Aural Suppuration.—Sidney Yankauer.—The author published in *The Laryngoscope* of July, 1910, a procedure for the cure of chronic otorrhœa. In order to ascertain what the experience of other otologists had been with this operation, he wrote to over 6000 otologists in the United States and elsewhere. Among nearly 2000 replies, he found 119 operators who had performed the operation from 1 to 53 times, the total number of cases operated upon being 735.

https://doi.org/10.1017/S1755146300017212 Published online by Cambridge University Press