

apparently a little more resistance, the resistant area being about three-quarters of an inch from the surface.

As it was doubtful whether or not the resistance was due to tumor, and as it was too deep and not sufficiently defined to warrant further search, the lateral ventricle was tapped and several drams of fluid removed. The cerebral tension was much relieved, and pulsation returned at once.

The patient left the hospital much improved, but later the headaches resumed, and in May, 1897, the vision was the same as in February last.

Aug. 16, 1897, the patient was seen again with reference to further operation. She had never been free from headache. After leaving the hospital she was worse for three or four weeks, then general improvement took place until three weeks before, when headaches became worse, and a week later they became severe. She was advised to re-enter the hospital if this condition did not improve.

Seen again in November, 1897, the headaches had been less severe for some weeks after August, but finally became again very severe, and she entered the hospital in October. A second operation was performed by Dr. Munro; the old wound was reopened and fluid evacuated. The pressure was not so great as at the first operation and there was no evidence of neoplasm.

Operation for the relief of intracranial pressure in cases of optic neuritis of unknown origin, apparently not organic, has been performed for me once with excellent success as regards the neuritis. The question to be determined in such cases is, what chance of recovery the patient has without operation.

CONCLUSIONS.

1. There exist certain non-traumatic cases of increased intracranial pressure of unknown or doubtful origin.

2. Whenever such an excess of intracranial pressure exists as to cause serious symptoms, the question of its relief by opening the cranium and cutting the dura should always be considered.

3. In certain non-traumatic cases of excessive intracranial pressure, more or less permanent relief—or even cure—may be obtained by proper surgical interference.

4. In cases of acute severe optic neuritis of unknown origin, the question of opening the cranium and relieving the excessive intracranial pressure should be considered.

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TYPHOID FEVER.*

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It is not to be supposed that the indications for the treatment of typhoid fever could be in all cases exactly alike, yet every case requires absolute rest, perfect ventilation, good nursing and as far as possible, the avoidance of noise. The covering of the bed should be light; the sheets and pillow cases should be changed at least every day; cleaning the patient's mouth and teeth should be attended to three or four times a day, and the most perfect cleanliness of the patient and his bed should be maintained. Fluids ought to be administered freely. Nourishment should be fluid and given often but in small quantities. It is desirable not to overfeed the patient but to give the maximum amount of proper food that can be assimilated. If the fever should be of a mild nature, this may be all or nearly all that is required. If, however, the toxin is virulent, then complications will arise that require remedies to meet them.

*Read before Fourth District Branch New York State Medical Association, Buffalo, May 8, 1900.

The most important of these complications are hyperpyrexia, diarrhea, hemorrhage, pneumonia or bronchitis, perforation, peritonitis, heart failure, sleeplessness and delirium. Of these the most important is the hyperpyrexia; if this can be controlled without depressing the heart and general system, the other complications are not as severe and, as a rule, are more amenable to treatment.

The best treatment for hyperpyrexia is still a debatable question. If it is allowed to continue, malnutrition and heart degeneration are sure to follow. Water has been the best antipyretic for me to use. Since 1897 I have used cold water internally as an enema to reduce the temperature, at the same time giving sponge baths when the skin felt hot and dry, never allowing the temperature to rise above 102 F. without using the enema. The temperature of the water varies from ice-cold to 70 F., as the condition of the patient may require. The quantity varies from four ounces to three pints at each injection. This may have to be repeated four or five times a day in severe cases, but in mild cases once or twice has been sufficient to keep the temperature 99.5 to 100 F. I have a complete clinical record of eight cases that were treated with the cold-water enema and the sponge bath as the antipyretics. I will briefly give an account of two of these:

CASE 1.—I was called Feb. 24, 1898, to see Miss B., aged 40, American. She had been nursing a case of typhoid fever for six weeks in a neighboring county, and had been feeling badly for ten days previous to coming home. She had headache, slight diarrhea, general malaise, epistaxis, nausea, disturbed sleep and tenderness and gurgling in the right iliac fossa on pressure. About two hours before I saw her she had a severe chill. Her temperature at 2 p.m. was 103.4, and her pulse was 130. I gave 1/10 gr. mercuric chlorid every two hours until five powders were taken, and ordered an enema of one pint of water at a temperature of 45 F., which was retained. At 5 p.m. the same day the temperature under the tongue registered 101 F. At 10 p.m. it had gradually gone up to 102 F., and the nurse then gave another enema of water at 45 F. At midnight the temperature reached 100 F., but did not go above that until 11 a.m. of February 25, when it began to rise. The bowels were distended with gas, but the application of very warm turpentin stupes gave some relief. At 3 p.m. the same day, I gave another enema, of one quart of water at 40 F. I also gave 5 gr. of salol every six hours, pepsin 5 gr. and subnitrate of bismuth 10 gr. every four hours. The sponge bath of cold water was used freely every half hour or hour if the temperature began to rise. Nourishment consisted of milk, rice water, crust coffee and meat juice.

It will not be necessary to describe in detail the progress of this case, as each day was nearly a repetition of the preceding day, with the exception that the enemas were not needed as often toward the close of the disease, so that one enema a day—with the cold water sponging—was all that was necessary to keep the temperature at 100 or below. At any time when it was nearing 102 the cold enema was given with prompt and decided relief. This case made a good recovery and the patient was discharged on March 24.

CASE 2.—I was called July, 1898, to see Mrs. L., who had been feeling ill for about a week. She had been away from home on a visit, and, typhoid fever having made its appearance in the family where she had been visiting, she came home with the following symptoms: severe diarrhea, almost unbearable, frontal headache, acute bronchitis with dry harsh cough, sick at the stomach, delirious tongue dry and brown, pulse 140, and at 9 a.m., July 1, a temperature of 104 F. I ordered hot application of flaxseed to the chest, and a cold-water injection; the latter was not retained. An enema of one

teaspoonful of starch-water with 15 drops of tincture of opium was given; and in one hour the cold-water enema (one pint) was repeated; this time it was retained. At 4:30 p.m. the same day the temperature was 102 F., and the patient was resting quietly. At 10 p.m. an enema of nearly one quart of water at 40 F. was given. Applications to the chest were continued, and 1/5 gr. of codein was given every four or five hours. At midnight the temperature was 100 and the pulse 110. During the remainder of the night the patient slept fairly well, something she had not done—she said—for more than a week.

On July 2, at 9 a.m., I found the patient quiet and resting, the delirium gone, the cough relieved, expectoration free, the temperature 100.5, and the pulse 100. A cotton-batting jacket was ordered in place of the poultices. Pepsin, 5 gr., and bismuth, 10 gr., were given every four hours, and salol 5 gr. every four hours. The bowels were very loose, but were kept under control by using, when necessary, 10 to 25 drops of the tincture of opium, in thin starch-water.

In looking over the nurse's notes I find that this patient received on an average of two enemas of cold water a day for seventeen days, with the most beneficial results. The temperature was always kept below 102 by means of cold water. This patient also made a good recovery and was discharged August 13.

The six other cases I would speak of briefly as a whole: One was a child of 6 years; one a woman of 60, and the others were of middle age. They were all treated with the cold or tepid sponge bath, whichever gave them the least discomfort; and all were given the cold-water enema. No bad results came from its use. One case of hemorrhage was promptly relieved by the enema of ice-cold water. Where the diarrhea was persistent it was controlled by the starch-water and tincture of opium. A little brandy was used in one case only, for the relief of temporary heart failure, while strychnia was used in several.

I wish to speak in particular of sleeplessness accompanied with restlessness and a tendency to exhaustion and delirium. The cold enema relieves this condition quickly and completely.

In closing these few remarks, I desire to say that early antisepsis of the gastrointestinal tract is greatly to be desired. A few doses of chlorid of mercury were used in all of these cases, followed by salol, for a longer or shorter period of time.

Whether the cold-water enema has an antiseptic action on the typhoid bacillus I can not say, but I do know that its use is followed by a rapid decrease of temperature and great comfort to the patient.

SHOULD THE DENTAL STUDENT BE EDUCATED INDEPENDENTLY OF GENERAL MEDICINE?*

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Only yesterday one commonly heard the statements: "These dental college graduates don't amount to anything, they are too theoretical; it is the practical man who learned in an office and never went to college that can fill teeth." "What's the use of a dentist studying anatomy and physiology and such things? He wants to learn to extract and make plates and put in fillings and not waste time on studying theory." A brief day finds all this passed away, profession and laity both de-

manding the degree of Doctor of Dental Surgery, as at least a certificate of proper study and attainment.

Again we note the same old spirit giving out the idea that too much study of medical branches makes a less efficient operator, that such work must be curtailed in order that more time may be devoted to purely technical training, and every consideration subordinated to development of the mechanical side of the subject. But the tide of advancement is even now setting in and with the weight of accumulating information is forcing the need of broader dental education along the line of general medicine. Already the layman of the better class looks for the M.D. to add assurance of reliability that to him the D.D.S. unattended does not represent. To claim that the dentist needs a knowledge of anatomy, but that his knowledge should stop at a given point, because he does not require a more extended study of the subject, and is in fact better without it, would seem to be strange logic; and yet—ridiculous as is this proposition, contemplating, as it does, the isolation in treatment of a limited part of that wonderful anatomic structure, the human body, from all its other portions, when its very fundamental principle is the harmonious co-operation of every division, whether great or small, with each and every other one—this is exactly what the advocates of dental, to the exclusion of medical, education for students of dentistry are, wittingly or unwittingly, undertaking to do.

It ought to be a matter of surprise that a paper having the title of this one should be called for by members of the dental and medical professions, so-called—for we know that these two, which at most ought only to be recognized as distinct factions of the same professional body, are not commonly so understood. While the current stirred by the movement of vastly increasing realization of the importance of anatomic, physiologic, clinical, histologic, pathologic, bacteriologic and therapeutic considerations in relation to the oral cavity and to even the simplest of those operations which contemplate the preservation of teeth and other organs associated with the mouth, the relative interdependence of other organs, or even the entire human organism, on the healthful condition of these special ones in the performance of their proper functions, has done much to broaden the dentist's field of operation, yet there is in some quarters a decided tendency to limit it, despite the very apparent need of its extension.

The colleges that have been conducted independently of medical colleges point with pride to the record of their achievements. They can and do truly say, "we have been the chief factors in making dentistry and the dentists of America the best in all the world." Grant this, and still may it not be possible that, in the evolution of the educational system of a great profession, the time has come for something better, for a curriculum which, embodying all that the specialization and technical training has beneficially accomplished, shall yet become so broadened as to include the scientific study that a thorough knowledge of medicine demands and which has become imperative to dentistry in view of the requirements of an educated public?

Notwithstanding all contrary efforts, several factors are working to this end. The education of medical and dental students together, as in the departments of universities and medical schools, is perhaps first among these influences. The advantage of future consultation

*Presented in a Symposium on Dental Education, before the Section on Stomatology, at the Fifty-first Annual Meeting of the AMERICAN MEDICAL ASSOCIATION, held at Atlantic City, N. J., June 5-8, 1900.