

a period of four or five days may elapse before a new dressing is needed. I find it necessary to treat the ulcer locally at each change of the dressing, according to indications, washing it with antiseptic solutions, applying iodoform when the granulations are sluggish, and nitrate of silver or the ferrum candens where the granulations threaten to become hypertrophic. I believe that this treatment conscientiously carried out will in the great majority of cases, prove successful.

FIBROID TUMORS OF THE UTERUS.

TREATED BY DR. FRANKLIN H. MARTIN'S OPERATION OF LIGATING THE BROAD LIGAMENTS—TWO CASES.

BY J. B. GREENE, M.D.

MISHAWAKA, IND.

Mrs. P. of Grand Rapids, Mich., had for several years been a subject of frequent and profuse uterine hemorrhage; during the years of 1892 and 1893 she suffered greatly with pelvic pain, and constipation. In November, 1893, I was sent for to perform hysterectomy, the physician in charge having diagnosed the case as one of uterine fibroid. Upon examination I found a fibroid almost completely filling the pelvic basin, and so adherent that it was entirely immovable. I should judge that the tumor would weigh ten pounds at least. I did not look upon hysterectomy in that case as promising much more than a coffin, and as I had but a short time before had a talk with Prof. F. H. Martin of Chicago, on his recent experiment in the ligation of the uterine arteries, (this conversation was before Prof. Martin had reported his experiment) I determined to adopt that method, adding thereto the ligation of the ovarian arteries, or one of them. Accordingly I made the ligation of the uterine arteries and a part of the broad ligament after the method described by Martin, but found it impossible to reach the ovarian artery per vaginam. I then cut through the abdomen, and with considerable difficulty was enabled to pass a ligature around both ovarian arteries, passing my needle under the Fallopian tubes, and then back and around the vessel, tying close to the uterus; the uterus showed such a great engorgement of blood that I felt certain there would be no danger of gangrene of the uterus, as there was sufficient collateral circulation from branches of the ovarian artery to maintain life in the organ. After the operation I left the patient in the care of her physician, hearing from her several times during the first two weeks, each report being favorable; after that I heard nothing. Jan. 9, 1894, I was in Grand Rapids, and called upon her. I was indeed surprised to see the great change that one year had made. She was the picture of health, and she informed me that she had never been better. She granted me the privilege of an examination. I thought that I could discover some enlargement of the uterus still remaining, but, if so, it was so slight that it was not worth considering, in the light of the great decrease in the size of the growth. She menstruates regularly and apparently normally, excepting that she has a slight pain during the first day, not often of sufficient severity to cause her to take her bed.

In August, 1893, I was called to see Mrs. H., Mishawaka, Ind., age 31 years. She had for two years been suffering with repeated floodings, not profuse, but frequent. Examination revealed a subserous fibroid in the posterior uterine wall, about as large as an unhulled walnut. She was anxious for relief, but objected to hysterectomy until everything else had been tried. I, therefore, decided to ligate the uterine arteries. She suffered no pain, and I was unwilling to ligate nerve fiber if I could avoid it, accordingly I passed a "guy" through the cervix and close to the os made an incision, entirely encircling the cervix, down to the cellular tissue; then with a "spud" or dry dissector I peeled the tissues back almost to the peritoneum. The uterine arteries were thus brought plainly into view, and with no trouble I passed my ligatures around them, tied and cut them short; then drew down the external uterine coat and with a continuous catgut suture I stitched it in natural place. I had no trouble with the case after; she never had a fraction of a degree of fever, suffered no pain, and in two weeks was out of the house; has menstruated regularly ever since, and has had no floodings. I have not examined her since, so can not say as to the condition of the tumor.

TECHNIQUE IN TÆNIA TREATMENT—REPORT OF A REMARKABLE CASE.

BY C. M. FENN, M.D.

SAN DIEGO, CAL.

In the absence hitherto of any unfailing tænicides or specifics, it may be profitable to inquire if there are any other methods available for the safe and certain expulsion of the various cestodes. Personally, having abandoned the search for such a remedy, for the reason that it might imperil the well-being of host as well as guest, I find that some of the standard tæniacides, if employed in adequate doses and supplemented by attention to certain details, to be noted farther on, may be made to accomplish all that we desire. For example, during the local prevalence of tape-worms which followed the importation of a measly herd from Mexico, some years ago, I came to use kameela in doses of 8 to 12 grains (3ii-3iii), and ethereal extract of male-fern to the extent of 4 to 10 grams 3i-3iiss). These apparently large doses, exceeding those recommended by the authorities of that period, were successfully administered and upon the hypothesis that a parasite which merely imbibes its sustenance, having neither mouth or intestine, and suckers for prehension only, must require quantity as well as quality. In the matter of details referred to, jalap was selected for the before and after cathartic, in preference to several others commonly used. For instance, castor oil, so widely commended in such cases, was believed to be deficient as a peristaltic persuader and practically inert in the presence of mucus. Senna is equally insufficient in its action and aloes correspondingly tardy, expending its force on the lower bowel. Jalap, on the contrary, besides having somewhat of an anthelmintic reputation is safe and admirably adapted for children, to whom it may be given clandestinely in gingerbread or cookies. Following the last dose of the purgative it is advisable to employ frequent enemata of cold water, with or without salt or soap. These appear not only to chill the worm but to measurably increase peristalsis.

Of the three species of tæniæ which mature in the human intestine, tænia saginata, tænia solium and *bothrioccephalus latus*, the first is of more frequent occurrence in tropical latitudes like this owing, doubtless, to the greater consumption of beef in comparison with other meats.

That tænia solium (pork-worm), however, is not unknown here may be inferred from the following case which may also be considered a fitting résumé of the foregoing remarks:

A little boy, on his first legs, injured a toe, to which his mother applied a bit of fresh pork. A second application, soon required, was about to disappear as mysteriously as the first when he was detected in the act of eating it. Three or four months later during a convulsive seizure several segments of a tænia solium were expelled. Believing it to be an instance of *post hoc propter hoc*, active measures were then taken to relieve the child of his unwelcome guest, and before reaching his third year he passed through ten severe ordeals, expelling in the aggregate 110 feet¹ of tape worm! The first three doses, by homeopathic direction, the parents believe were kouso or kameela in combination with some other drug. At all events, after each attempt the child was "sleepy, feverish and a source of great solicitude for twenty-four hours." A fourth dose by another attendant was known to consist of 15 drops of chloroform and one drop of croton oil! This was followed a few weeks subsequently by an emulsion of creasote. Still later, at the suggestion of

¹ Measurements reported by parents.

friends, two attempts were made with emulsions of pumpkin seeds. In justice to all parties, it is proper to state that in every instance starvation and purgation with castor oil, castoria, etc., were rigidly enforced. This is confirmed by an incident in the history, when the little patient led his only sympathetic relative to the cupboard and with tears running down his cheeks exclaimed: "Grandpa, I'm so hungry! I'm so hungry!" Meanwhile, reports of the case had reached relatives in the East, who immediately sent out a quantity of pelletierine tannate, with assurances of success. Two trials of this specific (?) quickly followed bringing away a few feet of the worm as other remedies had done. A small dose of the pomegranate alkaloid remained, but in view of previous failures it had almost been decided to await the natural demise, or suicide (?) of the parasite at the end of four or five years.

The tenth and successful assault was reluctantly undertaken by the writer. Though I should have preferred koussou or koussin for a child, the remainder of the pelletierine was given.

Without special restrictions as to diet a full dose of jalap preceded the tæniacide about twelve hours, and was repeated next day an hour or two after the exhibition of the anthelmintic. After thoroughly scotching the parasite, indicated by the appearance of large segments in the dejections, frequent enemata of plain and salt water were employed. Traction upon the worm was interdicted, but rather it was advised to strap the protruding extremity to the nates and continue injections. At a later hour the head intact and erect with fifteen feet of the tænia gave assurance of its unconditional surrender after a siege of nearly twelve months.

CONJUGATE DEVIATION OF THE EYES WITH MIDDLE EAR SUPPURATION.

Read before the Chicago Medical Society, Jan. 8, 1894.

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Upon June 13 last, I was called in consultation to see the following case, on account of the serious symptoms which had supervened three days before. The history of the case was given as follows:

John W., aged 18, had a discharge from his left ear during childhood. This had ceased and remained well until the present attack. After having influenza seven weeks ago, a severe otitis media on the left side with profuse discharge followed. Under treatment he was progressing favorably until three days ago when he had chills, severe pain in left side of head, dizziness and vomiting, since which time his temperature has ranged from one-half to three-quarters of a degree above normal, but has not exceeded that at any time. It was also noticed that the discharge was less profuse.

Condition Present.—Patient very weak, perspiring freely. Temperature 99 degrees. Pulse 120. Dizziness so bad he could not stand or walk alone, having a tendency to fall to left side, and the dizziness did not entirely disappear upon lying down. Moving or rising from the bed was always followed by a spell of vomiting. Pain over left side of head. Mastoid process normal in appearance and only tender upon pressure at one point behind meatus, corresponding to the antrum. Meatus filled with thick creamy pus tinged with blood. After removing this, a polypus about the size of a pea was seen projecting through a perforation in the upper part of the membrana tympani and covering a small perforation in the lower part. After removing the polypus with a snare the openings seemed large enough to allow a free exit for the pus. Upon examining the eyes I found that the movement of both to the right was defective but could be overcome by an effort.

June 14. The patient felt somewhat better, pain in left side of head had disappeared and the dizziness and vomiting were less severe. Temperature normal. Pulse slower. The eye symptoms were more marked, as they were unsteady when looking directly in front and could only be moved to right of median line with difficulty. No diplopia. Slight paresis of left facial nerve, more marked at lower part of face.

June 15. Patient improving but still very weak and dizzy upon moving. Both eyes were strongly deviated to

the left side and could not be turned to right of median line. The impairment in movement was about equal in each eye when tested separately. There was no diplopia and none could be elicited by careful testing. Convergence seemed to be retained for objects when held to left side. Pupils normal in size and reaction. Vision was not perceptibly impaired. Field of vision normal. The paresis of left facial nerve had disappeared.

June 16. The condition of the eyes was the same as on previous day. Dizziness still continued but patient could walk without assistance. As the perforations did not allow a free flow of pus I enlarged the lower one by a horizontal incision.

The improvement continued and the dizziness and ocular symptoms gradually disappeared within a few days, so that when he called at my office, two weeks later, no trace of any ocular trouble could be seen. Vision was normal and movement of the eyes perfect. The discharge from the ear was less profuse.

The suppuration ceased about a month later, and nothing now remains of the ear trouble but a slight amount of deafness with tinnitus, the perforations having cicatrized.

The important question in the treatment of this case was the cause of the ocular symptoms. Were they due to an affection of the brain or the meninges, and if so, what was its nature; or were they only a reflex symptom from irritation of the auditory nerve? In favor of the former view were the severe general symptoms as the chills, fever, dizziness and vomiting; but considering the speedy termination of the symptoms after the local treatment and the peculiar muscular symptoms, I am of the opinion it was the latter.

In support of this view is the intimate connection of the auditory nerve with the nerves governing the movements of the eye, especially those of conjugate lateral movement. Associated lateral movement of the eyes is under the control of a single nucleus, that of the abducens or sixth nerve. This nucleus, besides supplying the external rectus of the same side, also sends fibers which, according to most authorities (Fuchs,¹ Morris²), join the third nerve of the opposite side and go directly to supply the external rectus or, as Gowers³ believes, go to the nucleus of that portion of the third nerve supplying the internal rectus. This innervation is separate from that governing convergence, which is supplied by the nucleus of the third nerve.

A connection of the auditory nerve and the nucleus of the abducens has been demonstrated anatomically. S. Freud⁴ describes a connection of the vestibular portion of the auditory nerve by curved fibers going directly to the nucleus of the abducens of the same side. Other authorities, as Politzer⁵ and Gowers, consider the superior olivary body as the center for reflex movements of the eye, as it receives fibers from the auditory nerve and is directly connected with the abducens nucleus.

To show the direct connection of the movements of the eyes with aural vertigo, a number of physiologic experiments have been performed. Cyon⁶ found that operation upon the semicircular canals of different animals gave different results. In rabbits they were manifested principally by movements of the eyes. He also found that they were not compensatory, but came directly from irritation of the nerve. Irritation or section of one auditory nerve would produce a strong deviation of the eyes to the same side. Upon section of the other nerve the deviation would cease.

Lucæ⁷ experimented upon some of his patients by increasing the pressure in the tympanic cavity. He found that by increasing the pressure, lateral nystagmus was produced, and when still further increased