

It is interesting to contrast the first two cases, in which entire relief followed the separation of adhesions, with the two later cases which were to all appearances similar in anatomical condition and yet were not relieved by a similar operative procedure.

It would seem probable in the former cases either that the appendix had been destroyed by sloughing or by chronic obliterative inflammation, or that the inflammatory condition in it had so far subsided that when the adhesions were once separated there was no tendency for them to form again: while in the last two cases a very slight chronic inflammation of the appendix remained, which was enough to lead to a renewal of the adhesions even after they had been thoroughly separated.

The outcome in the earlier cases encouraged us to hope much from a simple freeing of adhesions in cases where the appendix seemed quiescent and could only be reached by extensive dissection. In fact it was so favorable as to make a difficult dissection seem unjustifiable in similar cases. But the later cases demonstrated the impossibility of determining when a buried appendix was quiescent and showed the importance of making the greatest possible effort to reach and remove it in every case.

I shall do a second operation on Case III, if the patient continues to have enough discomfort to lead him to consent.

In the *British Medical Journal* for March 9, 1895, Mr. Treves reports a series of eighteen cases, in two of which a condition similar to that just described was found and in which the appendix was not removed. Relief followed the operation in one of these.

Cases 20 and 30 are included in this table even though they were operated upon during the attack, because in both of them the inflammation found was of so mild a grade that, after the removal of the appendix, the abdomen could be tightly closed.

Case 20 was of especial interest clinically, for, although there was severe pain and a temperature of 102° F., the appendix was found only moderately swollen and injected. The peritoneum in the neighborhood was also injected as if it were being subjected to severe irritation. Unfortunately, I did not have a culture tube with me to test the possible presence of organisms outside of the appendix.

CHARACTER OF OPERATION.

The incision was made, in these operations, through or close to the linea semi-lunaris. The opening in the muscular wall was rarely over two inches in length and there was usually no difficulty in finding and freeing the appendix. Occasionally, the use of the Trendelenburg position was of material assistance in enabling a deep-lying appendix to be uncovered and readily dealt with.

The method of treating the stump was, when possible, to strip back a cuff of the peritoneal coat and with catgut to tie off the appendix, flush with the bowel-wall inside of this cuff of peritoneum, which was then pulled over the stump and stitched with fine, continuous black silk. In all but one operation, the abdominal wound was tightly closed without drainage. In that case,² a small abscess was found deep below the cecum in connection with the end of the appendix, and it was thought safer to leave a tube and wick of iodoform gauze reaching down to its cavity.

² No. 9 in the table.

RESULTS OBTAINED.

Besides the relief from periodic attacks of inflammation, it has been quite a common experience with me to see the operation work a total change in the digestive powers of patients. Two of them who are physicians have especially noted the fact that since the removal of the appendix they can, with immunity, indulge in the pleasures of the table as they never could before. In a large proportion of cases there has been a substantial gain in weight, reaching about thirty pounds in several instances.

It is too soon to know how many of these patients will have trouble from hernial protrusion through the scar; but, as yet, nothing of this sort has occurred in any of them, and in but one case has the scar shown any sign of stretching. In that case there was supuration in the wound due to infection of it from the appendix, which contained pus.

Clinical Department.

A CASE OF ACUTE OSTEO-ARTHRITIS INVOLVING THE WHOLE CERVICAL REGION OF THE SPINE, IN A WOMAN NEARLY SIXTY YEARS OF AGE, WITH RECOVERY.

REPORTED BY JOEL E. GOLDTHWAIT, M.D., BOSTON.

CASES of acute osteo-arthritis in which the spine is involved are not common, and it is for this reason that the following case is reported.

The patient, a woman fifty-eight years of age, by occupation a nurse, had always been well and actively engaged in her work until the present sickness. Her family history is good, and she has never had the least trouble from rheumatism.

In July, 1893, she was caught in a thunder-shower, and her clothing wet through. The next morning she complained of pain in the neck, with some tenderness in the upper part of the chest. There was no cough or expectoration. The pain in the neck increased in severity very rapidly, until the slightest motion caused the most intense suffering, and because of this the patient was admitted to the Good Samaritan Hospital. The patient entered the hospital in the service of Dr. Coolidge; and it was through his kindness that I was enabled to see her.

At the time of the first examination the patient was evidently suffering a good deal. The head was held a little to one side, the chin to the left, the shoulders drawn up, and all motions were most carefully guarded by muscular contraction. Any attempt at motion caused great pain. None of the other joints were in the least involved; and aside from this local condition the patient seemed well.

For the first week or two the patient was kept quiet in bed, and the various rheumatic remedies freely given with very little if any effect. After this a Thomas collar was applied for more complete fixation, and following this light weight extension was used. These gave some relief, but neither could be used continuously because of the nervousness of the patient; so that the two appliances were used alternately, each being worn for a few hours.

In three or four weeks after the beginning of the attack a swelling appeared in the right side of the neck. This was about the size of a small lemon, and was apparently connected with the spine. At the

THIRTY-TWO OPERATIONS FOR RELAPSING APPENDICITIS.—CABOT.

No.	Name.	Age.	Date of operation.	Attacks previous to Operation.	Condition found.	Subsequent History.
1	J. M. H.	25	Nov. 3, 1890.	First attack ten months before. Second attack four months before operation.	Appendix strongly bent beneath the cecum. Enlarged and thickened walls and ulcerated mucous membrane.	Entire relief.
2	P. McD.	12	July 24, 1891.	Nov., 1890. Since then twelve attacks.	Extensive adhesions of omentum and intestines separated. Appendix not found.	Two slight sensations of pain in abdomen after returning home. Since then perfectly well.
3	H. W. L.	22	Oct. 26, 1892.	First attack ten months ago. Eighteen attacks since.	Appendix twisted, thickened, and contained a concretion.	Entire relief.
4	F. C. A.	19	Nov. 1, 1892.	First attack a year and a half previously and second attack in April, 1892.	Appendix stretched down into the pelvis, narrowed near the bowel, containing a concretion.	Operation followed by entire relief.
5	P. C.	21	Jan. 11, 1893.	Had five attacks of appendicitis, first in March, 1889.	Appendix found constricted and bent upon itself with small perforation closed by adhesions.	Perfect health. Scar less solid than usual owing to stitch abscess. No hernia.
6	Miss M. M.	21	July 3, 1893.	Attacks for past five years. Five attacks since October, 1892.	Distorted and somewhat adherent appendix.	Relieved from the old pain. Scar solid.
7	W. F. B.	19	July 13, 1893.	First attack one year before. Since then two attacks.	Appendix twisted and tied in behind cecum by adhesions.	Entirely relieved.
8	Dr. H.	40	Aug., 1893.	First attack in 1885. Since then attacks every few months. These moderate in severity till 1893 when they became more severe.	Distorted and somewhat adherent appendix.	Entirely relieved of attacks. Chronic indigestion also relieved.
9	N. A. J.	34	Aug. 19, 1893.	In June, 1893, had sharp attack of colic with chills and vomiting. In bed twenty days. Afterwards pain persisted in right side and leg. Worse when walking.	Appendix extended into pelvis where there was a little abscess in communication with the end. Gauze and drainage tube.	Entirely relieved.
10	F. Q.	23	Aug. 26, 1893.	First attack five years ago. Three attacks since January, 1892. Last one August 13, 1893.	Appendix much enlarged, perforated at tip and in middle and wholly enveloped with adhesions.	Entirely relieved.
11	H. K. P.	24	Sept. 18, 1893.	Five attacks in year preceding the operation.	Appendix sharply bent on itself with a perforation at the bend which was closed by adhesions.	One month after operation had abdominal pain, relieved by laxatives. Since then well. Gained ten pounds in the next year.
12	F. E. H.	16	Oct. 11, 1893.	In February and July, 1893, severe attacks. After July an attack every three or four weeks.	Appendix so sharply twisted as to make almost a complete knot.	Entirely relieved. Gained seventeen pounds in three months.
13	J. B.	26	Oct. 23, 1893.	First attack in 1889. Constant discomfort and tenderness since, with about two sharp attacks yearly.	Many adhesions separated. Appendix buried beneath caput coli and not found.	Entirely relieved. Gained eighteen pounds.
14	Dr. S. E. W.	39	Nov. 27, 1893.	First attack in 1883. Next attack 1890. After these attacks about once in four months.	A stiff-walled appendix with a concretion in the terminal portion, bent sharply upon itself at about the middle and adherent to the colon.	Weight increased from 108 to 135 pounds. Entire relief of troublesome indigestion and great improvement in nervous tone.
15	B. F. D.	49	Jan. 25, 1894.	First attack in June, 1891.	See Case III in the body of the paper.	Entire relief, except for neuralgia in right leg during the following March. This promptly passed off.
16	Prof. H. G.	54	Jan. 30, 1894.	First attack in Oct., 1893. Second one in Dec. and a slight one in Jan., 1894.	Appendix bent in beneath caput coli, and adherent there. Narrowed in places by chronic inflammatory thickening.	
17	Dr. H. J.	38	Feb. 1, 1894.	First attack in 1877, second attack in 1886, third attack in 1892. After Jan., 1893 he had about two attacks a month, except in the summer when they were less frequent.	Cecum and ileum tied up by extensive adhesions which were covered with greenish lymph. Appendix not found. See Case 22.	Slight relief from the severity of the attacks for a time, then progressively increasing severity of the attacks until finally the condition worse than before.
18	W. Y. P.	35	Feb. 22, 1894.	Troubled with indigestion for twenty years. First attack of appendicitis in 1884. Since then three or four moderately severe attacks a year.	Appendix straight but occluded at distance of one inch from the ileum.	Entirely relieved from the attacks.
19	Dr. F. W. W.	40 (?)	Feb. 28, 1894.	First attack fourteen years ago. Many mild attacks since. Had also oxaluria and a stiffness of back.	A twisted, adherent and partly obliterated appendix.	Subsequently developed Pott's disease with left psoas abscess.
20	Miss S.	19	Sept. 15, 1894.	For several months she had constant discomfort in right iliac region with occasional exacerbations of pain.	Operated in midst of attack with temperature 102°. Appendix congested and bent upon itself.	Entirely relieved of the discomforts and pains she had previously suffered.
21	I. R. T.	32 (?)	Dec. 14, 1894.	First attack in Aug., 1894, and after that about once a fortnight till time of operation.	Appendix large with thick walls and containing pus. It was adherent to anterior abdominal wall.	Entirely relieved and gained greatly in weight.
22	Dr. H. J.	39	Jan. 8, 1895.	See full history in the body of the paper. Second operation on Case 17.	Appendix shrunken and adherent behind cecum.	Entirely relieved. Gained thirty pounds.
23	G. E. S.	33	Feb. 9, 1895.	First attack three years ago. Since then many attacks not counted.	Appendix thickened and bound down by short meso-appendix.	Entire and lasting relief.
24	J. McF.	35	Feb. 15, 1895.	Doubtful attack fifteen years ago. Second attack in Jan., 1895.	Appendix thickened, twisted beneath cecum and adherent there.	Not heard from.
25	J. C.	33	Feb. 15, 1895.	First attack in April, 1894. Second severe attack in Jan., 1895.	Appendix doubled on itself and held by adhesions. Calibre partly obliterated.	Immediate relief of dragging discomfort.
26	W. C. C.	29	March 1, 1895.	First attack twelve years ago. Second attack five months ago. Since then about one a month.	Appendix tied by adhesions beneath the cecum.	Not heard from.
27	F. O. H.	33	March 1, 1895.	Two slight attacks in 1894. Severe attack in Jan., 1895.	Appendix adherent beneath caput coli and twisted on itself. Cheesy remains of pus about meso-appendix.	April 4, 1895 writes of better health than for years. Weight greater than ever before and still increasing at the rate of one pound a day.
28	A. F.	20	March 25, 1895.	First attack in Nov., 1894.	Appendix retrocecal. Held by adhesions, with dilated extremity.	Wholly relieved.
29	Kate L.	25	April 25, 1895.	Two attacks in Jan. and Feb.	Appendix long. Some adhesion about cecum.	Relieved.
30	A. F.	22	May 24, 1895.	One previous attack. Operation during an attack of moderate severity.	Appendix doubled on itself and bound down by adhesions.	Wholly relieved.
31	Miss E. F.	24	May 8, 1895.	One or two a year, since eleven years old.	Somewhat thickened appendix. Short meso-appendix. A few adhesions about the cecum.	Been perfectly well and gained twenty pounds.
32	D. G. E.	21	June 22, 1895.	Three attacks in past year. Two of them lasted about ten days.	Adherent and distorted appendix.	Wholly relieved.

same time numbness of the left arm was noticed, with some impairment of motion. This latter condition continued and increased until the arm was almost entirely helpless. The right arm and both legs also became involved, never in as marked a degree as the left arm, but enough to make motion unassisted in bed, impossible. At one time there was some difficulty in swallowing, and for some time the breathing was almost entirely diaphragmatic.

The patient's condition remained about the same for two months, after which there was a slow but steady improvement, so that at the end of the third month she was able to sit up for a short time each day, and in December, five months from the onset of the trouble, she was able to move about with but little assistance, and was taken home. The paralytic symptoms referred to the right arm and the legs had by this time practically disappeared, but the left arm was still very helpless. The swelling in the neck was practically the same as when first noticed.

The patient was not again seen until thirteen months later, during which time, aside from the Thomas collar no special treatment had been carried out. At the time of this examination the improvement in the patient's general condition was most marked. She moved about with perfect ease; and, aside from the stiffness of the neck and some impairment in the use of the left arm, she seemed well. Extension of the neck was entirely restricted, so that in order to raise the chin the whole body was bent backward. Rotation was also entirely restricted, while flexion of the neck was nearly normal, it being possible to lower the chin to the chest. On each side of the neck, over the transverse processes, was very distinct thickening, apparently bony in character.

In the left arm all motions were limited, especially those in which the shoulder muscles were used. The fingers were flexed, apparently due to contraction of the palmar fascia and the flexor tendons. The sensation of the arm and hand was normal.

At the present time the patient's condition is practically the same as at the time of this last note. She is able to be about at her work, but there has been no change in the condition of the neck or the arm.

In commenting upon such a case the chief interest lies in the diagnosis. Certain conditions can be eliminated at once or in a short time while with others positive differentiation is difficult or impossible. The fact that other joints are not involved, together with the effect of the salicylates, makes it easy to rule out acute rheumatism, while the history of the onset, this condition developing so rapidly, makes the chronic rheumatism improbable. The simple "crick" is rarely so severe and is well in a few days. Caries of the cervical spine developing after middle life is very rare; so that, while this may not be put aside entirely, it is improbable. The chief difficulty lies in differentiating osteo-arthritis from malignant disease; and this at times is impossible until after the lapse of considerable time. In the present case the positive diagnosis was not made until the improvement commenced. The history of the onset, if this can be depended upon, is at least suggestive; but the character of the pain is probably of as much importance as any one symptom. In malignant disease the pain is, as a rule, much more severe and more constant than in the bone inflammations, and fixation or drugs (aside from morphia) have no effect upon it.

The treatment of osteo-arthritis of the spine is largely palliative. Absolute quiet for the affected part is of first importance and for this purpose splints, bandages and various forms of apparatus are of use. In certain portions of the body extension can be employed to advantage to control the muscular spasm. Local heat is also of benefit. Drugs, aside from making the patient more comfortable, are of little use.

CLINICAL NOTES OF CATARACT PATIENTS.

BY DAVID COGGIN, M.D., SALEM, MASS.

DISLOCATION DOWNWARDS OF A CATARACTOUS LENS WITH NORMAL VISION.

Mr. W., forty, accountant, February 16, 1877. Was sent from a life insurance office because of poor vision of his left eye ($\frac{1}{10}$ and $\frac{1}{4}$, right). Incipient cataract, left, with fluid vitreous and floating opacities.

April, 1888. Mature cataract, left. With a cylindrical glass from an optician, vision = $\frac{2}{3}$, right eye. Cataract forming.

Christmas, 1889. Last evening suddenly observed "stars," and saw surrounding objects with his blind (left) eye. The opaque lens was found to be dislocated downwards, rising and falling with the movements of the eye. No pain or redness.

Later he sought his optician, who gave him a lens with which, one month ago, his vision was normal, or $\frac{5}{8}$. The upper edge of the cataract could be seen behind the lower border of the pupil. No pain or discomfort was complained of. The cataract of his right eye had so far advanced that he could count fingers only, half a metre off.

RUPTURE OF A PUPILLARY MEMBRANE AFTER REMOVING A CATARACT.

Miss S., sixty, April 1, 1877. Extraction of cataract from her left eye (Graefe modified). Healing process normal. Discharged from the Salem Hospital May 2d with a delicate membrane which prevented clear vision. Six weeks later, on examining the eye previous to performing a double-needle operation, it was found that a spontaneous rupture of the membrane had occurred, so it was necessary only to order the glass with which she could see well.

HEMORRHAGE AFTER EXTRACTION OF A CATARACT.

Mr. M., sixty-seven, master mechanic, September 9, 1880. Left eye lost, owing to an accident four years before. Mature cataract of the right. Patient timid, and insisted on inhaling ether, under the influence of which he came slowly and with considerable excitement. Lens apparently adherent inferiorly, so it was extracted with a scoop. Loss of a moderate amount of fluid vitreous. Scarcely any hemorrhage had accompanied the iridectomy. Half an hour later the eye looked well, the patient had about recovered consciousness, and the knit bandage was applied. On visiting him in the evening the dressings were found saturated with blood. He had vomited, or retched, most of the afternoon. The lips of the wound were separated by a firm clot of blood which was removed and the band was reapplied.

But little pain was complained of during the healing process. There was a good anterior chamber, a closed pupil, perception of light and no atrophy of the eyeball. No attempt was made later to improve the