

in whose statements I repose the utmost confidence, asserts that, for six weeks previous to his death, not a drachm of any fluid whatever entered his stomach, and for six months antecedent to the operation he certainly partook of no solid food. It must also be borne in mind that, under the most favourable conditions, the amount of nutriment finding its way into the stomach was exceedingly small, and of itself utterly inadequate to the wants of the system. In reality, therefore, the economy drew almost its exclusive supply from the rectum, for a period of much longer duration than six weeks. Indeed, there seemed to be a certain law of compensation, and an accommodation to the exigencies of the occasion, the absorptive power of this man's rectum being certainly greater than is generally thought to belong to that portion of the alimentary canal. The case mentioned by Dr. Barlow, where life was sustained by enemata alone for seventy days, would seem to confirm this view. The rectum being supposed incapable of rendering aliments fit for absorption, Dr. Gull has proposed that the food, previous to injection, be mixed with pepsin. I am not aware, however, that any experiments have been made with the view of testing the value of this suggestion.

It will have been remarked that food was introduced into the stomach shortly after its having been opened. The propriety of such a step is questioned by Mr. Durham, and objections can certainly be urged against it. But it was manifestly proper in this case, as the man was already on the brink of the grave, and death was imminent from the want of nutriment. It was not an experiment that could be performed with any degree of propriety in this instance, as the only chance remaining was that the food brought in contact with the gastric mucous membrane would be quickly absorbed, and bring fresh life to waning vitality. When death from inanition is not threatened, it might be well to nourish the patient for a few days by the rectum, until the stomach accommodates itself to its novel relations, but assuredly no such course should be pursued in cases similar to that now recorded.

In conclusion, I must express my indebtedness to Mr. Hermann W. Newcomb for the above accurately drawn up history of my case.

ART. VIII.—*Cases of Ovariectomy.* By WASHINGTON L. ATLEE, M. D., of Philadelphia, Fellow of the College of Physicians of Philadelphia, etc. Reported by J. EWING MEARS, M. D., Member of the Pathological Society of Philadelphia, etc.

CASE 205. *Multilocular ovarian tumour; tapped once; inveterate adhesions; operation, June 8, 1869, by Drs. Getchell and Atlee; incision four inches long; recovery.*—Mrs. G. R., æt. 35, married, resident of this city,

was visited by Dr. Atlee in consultation with Dr. Helfrich, Jan. 5, 1869. She gave the following history of her case: About six months ago, while returning from market, she was struck in the abdomen by a market basket, which was followed by a pain in her left side, low down; no increase in size occurred consequent upon this accident.

December 27, 1868. She was seized with a very severe pain in the left side, which continued to increase until it became so intolerable that Dr. Helfrich was sent for. In the belief that the pain depended on the passage of a renal calculus, an anodyne was prescribed, and rest enjoined; at this time there was also a protrusion of the umbilicus; since this attack she has remained in bed, and enlargement of the abdomen has rapidly taken place; although disposed to corpulency, she is now somewhat reduced in flesh.

Menstruation commenced at the age of fourteen, occurring up to the present time every two weeks, and always profuse. At the age of twenty-five she was married, and has borne one child, now seven years old. Labour was natural, and menstruation returned fourteen months after child-birth.

Examination shows the abdomen enlarged to the size of pregnancy of full period, quite elastic at some points, and harder at others; fluctuation is inferred on palpation, but on percussion it is scarcely perceptible; resonance is distinct along the right side and in the upper portion of the abdomen. Uterus central and movable, os patulous, and the sound enters three and one-half inches; pelvis free.

General health of the patient good; bowels regular; micturition frequent; states that she has always enjoyed good health, and is free from any hereditary predispositions.

Diagnosis.—Multilocular ovarian tumour of an acute character.

February 8, 1869. Dr. Atlee tapped the patient, and removed six quarts of blood-red fluid, which coagulated firmly when subjected to heat; after the removal of the fluid a large semi-solid mass occupied the left side filling up that region of the abdominal cavity. Examination a few days later discovered the tumour occupying a central position indicating absence of adhesions.

March 23. The puncture made in tapping, after having been firmly healed, ulcerated, and permitted the copious discharge of an offensive fluid, purulent in character.

June 1. Dr. Helfrich, having gone to Europe, left his patient in the charge of Dr. Getchell, whom Dr. Atlee met in consultation on this date. The discharge mentioned above has continued, producing extreme exhaustion and emaciation; the abdomen is still uniform in shape, and every where resonant on percussion as if the cyst contained air. Condition of the patient at this time placed her case in the class designated in the first report as the second, and the propriety of operative interference, with a view to avert impending death, was fully discussed by Drs. Getchell and Atlee.

The patient desiring to avail herself of the only chance of life remaining, signified her willingness to submit to an operation.

8th. Ovariectomy was performed, Drs. Getchell, Atlee, Burpee, Hont, and Mr. McClellan, medical student, being present. Dr. Getchell commenced the operation by making an incision about four inches in length, and to the left of the ulcerated opening.

The structures divided by the incision were so changed by inflammation,

thickened and indurated, that the cyst wall, which was intimately adherent to the abdominal wall, could not be readily recognized; when satisfied that the cyst had been reached, the fingers were introduced, and the adhesions immediately surrounding the incision were, with much force, broken up. At this stage of the operation Dr. Atlee, at the request of Dr. Getchell, introduced his hand into the abdominal cavity and separated the remaining parietal adhesions, which were extremely firm and required great force, and the tumour was turned out of the abdominal cavity. The transverse and descending portions of the colon were adherent to the tumour; both were detached by dissecting off the peritoneal coat of the tumour, and leaving it attached to the intestines.

The pedicle was secured by the clamp and divided. One vessel in the meso-colon required ligation, the end of the ligature being brought out through the incision; very little hemorrhage occurred; the incision was closed by five wire sutures.

The tumour consisted of the left ovary, multilocular in character. Its interior was very rough, and contained a quantity of most offensive purulent matter.

The patient recovered without an unpleasant symptom, and in September following reported herself restored to perfect health.

CASE 206. Monocystic ovarian tumour; strong adhesions; never tapped; operation, July 1, 1869; incision four inches in length; recovery.—Mrs. A. H., æt. 45, resident of Chester, Delaware County, Pennsylvania, consulted Dr. Atlee June 7, 1869, and gave the following history of her case: Menstruation began at the age of twelve years, and, although profuse and painful, has always been regular until after the birth of her last child now four years old; she married at the age of twenty-seven years, and has borne seven children; her labours were easy and recoveries good.

September 14, 1867. She was seized with severe pains in the hips and back, which resembled labour pains so closely that Dr. W. W. Johnson of Chester, who was called, thought that a miscarriage was about to occur; about this time she noticed an enlargement in the centre of the abdomen; menstruation continued at irregular intervals, and the abdomen gradually increased in size so that she believed herself pregnant, and thought she felt the motions of a child. Return of the menses after an interval of thirteen weeks, dissipated the belief that she was pregnant; general health has been good until lately, when she has emaciated quite rapidly.

On examination the abdomen is found larger than at the full period of pregnancy, prominent and slightly irregular in shape; fluctuation distinct and accompanied by a very peculiar trembling over the right umbilical region; os tincæ close behind the symphysis pubis; the sound enters two and one-half inches, causing pain, but the uterus is fixed and immovable; deposits can be felt in the pelvis, confined mostly to the superior strait. Contents of the pelvic cavity fixed and immovable; most of the distinctive features of a multilocular ovarian cyst are present, but not sufficiently well-marked to render the diagnosis positive; after careful examination it was decided to be a monocystic ovarian tumour.

July 1, 1869. Ovariectomy was performed at Chester, Drs. Burpee and Emanuel of Philadelphia, and Drs. Johnson and Harvey of Chester, being present. Anæsthesia being produced by the mixture of chloroform and ether, an incision two inches in length was made in the linea alba down to

the cyst; on the introduction of the fingers, firm parietal adhesions were found to exist; these were separated as far as possible by the fingers, and the cyst was evacuated, removing about two and one-half gallons of purulent-like fluid. In order to separate the adhesions which existed between the cyst and other portions of the parietes of the abdomen, and also those which were found in the pelvic cavity, it was necessary to enlarge the incision two inches. The adhesions being broken up the tumour was removed, and the pedicle which involved the right broad ligament of the uterus, and was thin and fragile, was secured by the clamp and divided; considerable hemorrhage occurred from separation of the adhesions; one small artery in the right lumbar region required application of the acupuncture needle; the blood which had collected in the pelvic cavity was removed by soft sponges, the other ovary examined and found healthy, and the incision was closed by four iron wire sutures.

The tumour consisted of the right ovary, and was mono-cystic, with some slight deposits in its walls. The cyst wall was very thick, and had evidently undergone inflammatory action.

The patient reacted well from the operation; no nausea or vomiting occurred, and recovery speedily took place.

CASE 207. *Multilocular ovarian tumour; tapped once; adhesions; operation, July 3, 1869; incision four and one-half inches in length; recovery.*—May 17, 1869, M. W., æt. 50, unmarried, small, and delicate, resident of this city, consulted Dr. Atlee for an enlargement of the abdomen. She states that about two years ago she noticed an enlargement in the upper portion of the abdomen, and down the right side. At first the swelling would disappear and again return, but for the past year the increase has been permanent and progressive; two months since œdema of the lower extremities occurred and has persisted; orthopnea has existed for some time past; menstruation began at the age of seventeen, at first irregular, profuse, and painful. Under active treatment she became regular, and so continued until the age of forty-seven, when it suddenly ceased. Subsequently she had, at irregular intervals, slight bloody discharges, and for the past two weeks a constant reddish-yellow discharge.

Abdomen larger than at the full period of pregnancy, and very tense; its lower border œdematous, and the skin inflamed; fluctuation distinct; dulness over the entire surface on percussion; the uterus *in situ*; walls of the pelvic cavity œdematous. Paracentesis abdominis was performed, removing thirty pints of transparent gelatinous fluid, the consistence of meringue, which coagulated only to a limited extent by heat. The enlargement in the right side and anterior portion of the abdomen subsided on tapping, the left side remaining elevated, particularly the left hypochondrium, which was occupied by a tumour resembling the hypertrophied spleen, its position corresponding to that of the spleen.

May 21. Œdema has disappeared from the extremities; abdomen more uniform in shape, tumour in the region of the spleen having gravitated towards the centre; resonance now exists in the left hypochondrium and in the epigastrium; firm masses can be felt along the left side, above the pubes, and also in the right iliac region; pelvis free; uterus central, small, and movable, not penetrable by the sound. Diagnosis, multilocular tumour, involving left ovary.

July 3. The fluid having rapidly re-accumulated, accompanied by the same conditions of orthopnea and œdema of the extremities, ovariectomy

was performed, the following physicians being present: Drs. Cady, attending physician, Burpee, Mears, Keen, Hoffman, Sehell, Stryker, of Philadelphia, Boekius, of Germantown, Bartholomew, of Worcester, Mass., and Rowell, of Florence, Alabama. The usual anæsthetic was administered, and an incision three inches in length made in the linea alba; the cellular tissue was very œdematous. The adhesions which existed between the tumour and the anterior wall of the abdomen were separated with slight force. In accomplishing this, the large cyst was ruptured, and the contents, similar to the fluid removed at the tapping, and measuring several gallons, escaped through the opening. In order to reduce the size of the multilocular mass filling up the left side, the wall of the cyst was incised, the hand introduced, and the septa broken down, evacuating the fluid into the large cyst; from this cyst it was removed without getting into the peritoneal cavity. The incision was then enlarged to the extent of an inch and a half, and the tumour by gentle traction and pressure was extracted through the comparatively small opening; the pedicle, short, small, and vascular, was secured by the clamp, and severed. Very little hemorrhage occurred; a small parietal vessel in the iliac region was compressed, the parts carefully cleansed, and the incision closed by four wire sutures. Time occupied in the operation, thirty minutes.

The tumour consisted of the left ovary, contained thirty pints of fluid, and weighed fifty pounds; the other ovary was healthy. No nausea or vomiting occurred, and patient made a rapid recovery.

CASE 208. *Double ovariectomy; multilocular ovarian tumours; inveterate adhesions; never tapped; malignant; operation July 21, 1869; incision four and one-half inches in length; death in forty-eight hours.*—June 25, 1869, Dr. Atlee examined Mrs. G. H., of Baltimore, Md., in consultation with Drs. John Morris and Domè, of that city. She is a native of Germany, æt. 55 years; married at twenty-seven years of age; has borne four children, the youngest eighteen years old; children large, and labours difficult; two were stillborn.

She first noticed a tumour in the right side in November, 1868, and before that time had experienced some difficulty in micturition. Emaciation has rapidly occurred, and she is now cachectic and broken down.

Abdomen as large as a woman at full period of pregnancy, and its shape irregular. Cysts can be felt in both sides, with a firm resisting mass between them, the latter occupying a position below the umbilicus and to the right of the linea alba; pelvis occupied by a resisting mass; uterus greatly elevated; os can scarcely be reached; it is above and to the right of the symphysis pubis; the sound enters three and one-half inches, and is strongly resisted by hard tissue; uterus hypertrophied; presents itself as the hard tumour occupying the position below the umbilicus, and to the right of the linea alba; uterine hemorrhage has never occurred; diagnosis, multilocular ovarian tumours, with fibroid degeneration of the uterus, and pelvic and abdominal adhesions.

Prognosis, very unfavorable. July 9, Dr. Morris wrote Dr. Atlee to the effect that the patient was very desirous of submitting to operative interference, and "was determined to undergo all the perils of an operation."

July 21. Dr. Atlee visited Baltimore at the request of the patient for the purpose of performing ovariectomy. She was still declining in health. The operation was performed, the following physicians being present:

Drs. Morris, Domè, attending physician, Mitchell, Allen Smith, Doyle, and Garretson. The anæsthetic having been administered, an incision about three inches in length was made in the *liaca alba* down to the cyst, giving exit to a small quantity of peritoneal fluid. The uterus, owing to its increased size and elevation, was brought into view at the lower part of the wound. The incision was extended in both directions, so as to measure four and one-half inches, and the presenting cyst was tapped. Several smaller cysts in the right and left sides were evacuated through the opening made in the presenting cyst, removing several quarts of fluid of different colour and consistence, and the size of the tumour was much reduced. At this stage of the operation, muscular spasms occurred, contracting the abdominal muscles so firmly as to cause extrusion of the small intestines and transverse colon. These were carefully guarded from injury, and on the completion of the operation, gently returned to the abdominal cavity.

The enlargement of the incision, and evacuation of the cysts, permitted an inspection of the cavity, and an examination of the condition of its contents. The uterus was enlarged by deposits to the size of a double fist; the broad ligaments on both sides were thickened and expanded over cystic masses, and firmly adherent to them; the lower portion of the abdominal, and also the pelvic cavity were filled by an aggregation of small thin-walled cysts which were bound down by firm adhesions to the surrounding parts; the cysts in the upper portion were larger, and not so firmly adherent, but their walls were extremely fragile, and ruptured in the efforts made to detach them. An effort was made to dislodge the tumour of the left ovary by enucleation, but this method failed owing to the firm character of the adhesions and the fragility of the cyst-walls. The smaller cysts were then ruptured, and as much of the tumour as could be separated was removed in a ragged mass, attached to the pedicle, which involved the left broad ligament; the clamp was applied and the pedicle divided.

The tumour of the right ovary, also a multilocular mass, and firmly adherent, with fragile walls, was removed in the same way, and the pedicle, short and thick, was secured by the clamp and severed.

The pelvic cavity was still filled up with small cysts and masses of shreds and morbid tissue; the cysts were ruptured, and as all nutrition was cut off, it was hoped that if the patient survived, they, with the surrounding adventitious tissue, would be removed by absorption or suppuration.

The large size of the uterus, with the short pedicles, with the clamps attached, rendered it impossible to replace that organ in the cavity of the abdomen, and approximate the edges of the incision. Ligatures, with one end placed between the edges of the incision, were, therefore, substituted for the clamps. An attempt was now made to return the extruded intestines, and was successful only after prolonged effort, owing to the rigid condition of the muscles of the abdomen.

The incision was closed by six wire sutures and two pins, and a tent introduced at the lower angle to permit free drainage.

An examination of the intestines before they were returned to the abdominal cavity, showed them to be greatly congested, the mesentery very vascular, and filled with tubercular-like deposits; the omentum was thickened and contracted into a roll, and the whole interior of the abdomen was in a morbid condition, and the peritoneum studded with tubercular-like

masses. The general impression was that the tumour was malignant in character.

The anæsthetic was well borne, and no nausea or vomiting occurred; the pulse flagged at times, but soon responded to stimulants; several ounces of venous blood were lost, but there was no active hemorrhage, and no vessels required ligation.

The patient reacted from the operation, but soon began to sink, and died in forty-eight hours. No post-mortem examination of the body, and no microscopic investigation of the tumours were made.

Remarks.—It is greatly to be regretted that an autopsy was not made in this case, and that the microscopic characters of the tumours were not determined.

The symmetrical nature of the disease, associated with manifestations of morbid conditions in the surrounding structures, as well as the gross appearance of the tumours, seems to confirm the opinion expressed at the time of the operation in regard to the malignancy of the disease. In very many particulars the conditions found to exist in this case correspond very closely with those described as occurring in the alveolar variety of carcinoma, which form of disease it is stated rarely occurs anywhere but in the ovary. It exists as "an accumulation of numerous fibrous sacs, which diminish in size from the circumference towards the interior, and especially towards the base of the morbid growth, the latter representing a condensed alveolar mass, the alveoli of which consist of a white, shining, fibrous tissue, and contain a colorless or grayish, yellowish, yellowish-green, or reddish viscid gelatine;" the peripheral follicles are converted into larger sacs and establish the ovarian dropsy. It is also stated that the malignant character of this species of ovarian dropsy is established by the existence of a well-marked cachexia, and by "the complication with cancer (especially of the medullary variety) in the same organ, and with other varieties of cancer in other organs, as the peritoneum or the stomach." It is with especial reference to this fact, that the absence of any post-mortem examination and microscopic study is regretted, by means of which the nature of the tubercular-like masses which occupied the mesentery and studded the peritoneal surfaces, as well as the deposits which produced the hypertrophy of the uterus, could be definitively determined.

In reference to the propriety of operative interference in this case, it is to be observed that it clearly belongs to the second class of cases, in which the operation is undertaken with the forlorn hope of diminishing suffering, of arresting impending danger, of prolonging life, and, as sometimes occurs, of restoring to perfect health.

CASE 209. *Multilocular ovarian tumour; extensive and inveterate adhesions; tapped eight times; operation September 29, 1869; incision three inches; no pedicle; death on the fourth day.*—Mrs. P. H. G., æt. 35, resident of San Francisco, Cal., was examined by Dr. Atlee

at Brooklyn, N. Y., September 28, 1869. She had arrived a few days before by rail, having come east for the purpose of submitting to a surgical operation for the relief of an abdominal tumour, with which she had been afflicted for thirteen months. Menstruation began at fifteen years, and has always been regular. She was married at twenty-two years of age, and has borne six children, the last one year ago.

About three months before the birth of the last child, she noticed that her abdomen was becoming unusually large, and she gradually increased in size to such an extent that her physician thought her pregnant with twins, and combined with this a large accumulation of liquor amnii; the fetal movements were only perceptible on the right side. She arrived at the full period of gestation, and was delivered, in an easy labour, of a living child. There appearing to be no diminution in her size after the birth of the child, she was tapped, and two bucketsful of fluid of a bloody colour were removed. From August, 1868, to September, 1869, she was tapped eight times, removing varying quantities of fluid, which differed in colour and consistence. Up to the sixth tapping the abdominal enlargement entirely subsided. After the sixth, seventh, and eighth tapplings, a tumour remained in the upper portion of the abdomen, being larger after each tapping. At one of the tapplings the fluid is mentioned as purulent, and after the second tapping menstruation did not reappear. Patient extremely emaciated and cachectic, with a small, thready, almost imperceptible pulse; she has a strong resolute will, and insists on submitting to an operation.

Examination shows the abdomen irregular in shape; the outlines of several cysts can be distinguished by the eye. In the upper portion, several small cysts are traceable, whilst the lower portion is occupied by a large one, in which fluctuation is quite distinct. Uterus central; admits the sound two and one-half inches, and is more or less fixed in position. The fact stated by the patient, that when tapped, the lower part of the abdomen subsided, and the upper portion projected, and remained in that condition, clearly indicated that adhesions existed.

Diagnosis, multilocular ovarian tumour; prognosis, very unfavourable.

September 29, 1869. Ovariectomy was performed, Drs. G. Cochran, attending physician, Kissam, A. Cochran, Bauer, Tucker, Gilfillan, and Walker, all of Brooklyn, being present. The anaesthetic having been administered, an incision about three inches in length, was made in the linea alba, and almost immediately divided the cyst-wall, which was very thin and intimately incorporated with the parietes of the abdomen, so that the section seemed to be through one kind of tissue, there being no lines of demarcation. On opening the cyst about two gallons and a half of milky-coloured fluid, resembling somewhat in colour and consistence soft soap-suds, was evacuated. An attempt was made to separate the cyst from the abdominal wall, but, owing to firm adhesions and fragility of the cyst-walls this was only partially accomplished. Further explorations disclosed extensive and strong adhesions between the tumour and all the surrounding structures, and any efforts made to break them up resulted only in detaching masses of softened tissue. The secondary cysts were ruptured, and the interior of the cyst, as it were, eviscerated, removing also as much of the adherent cyst-wall as possible. The intestinal adhesions were not disturbed, and no attempt was made to dislodge the portion of the tumour imbedded in the pelvic cavity, and inextricably incorporated with the contained organs and adjacent parts, as it were, matted together in one mass by hands of adhesions, and inflammatory exudations; the cysts were rup-

tured us in the upper portion, and the contents removed, leaving the cyst-wall adherent, and with it the pedicle. The cavity was now cleansed, and the incision closed by five wire sutures, a tent being introduced at the lower angle. Considerable venous oozing occurred from the lacerated adhesions, which was controlled by pressure; no vessels required ligation.

At times the patient was exceedingly weak, but bore the operation quite well, and was placed in bed with a pulse quite as good as when the operation was commenced. The attending physician, Dr. George Cochran, reported that she never rallied, and died on the fourth day from exhaustion.

Remarks.—This case also belongs to the second class. Dr. Atlee had been solicited to visit San Francisco for the purpose of operating at her own home. Failing to receive any encouraging reply, she started, in spite of her enfeebled condition, to make the long journey by rail, and went to her brother's house in Brooklyn, N. Y., determined to submit to an operation. When the unfavorable prognosis was announced to her, and the opinion stated that an operation afforded the only chance of life, and that a remote one, she expressed her entire willingness to submit, and announced herself grateful at the determination on the part of Dr. Atlee to perform the operation. He believes that an operation at home—before the mental and physical strain, incident to a long, uninterrupted and exhausting journey had, with her disease, so prostrated the vital powers—would have offered much greater prospects of success.

ART. IX.—*Encephaloid Disease of the Right Humerus; Amputation at the Shoulder-Joint; Recovery.* By WM. A. GOTT, M. D., of Verona, Vernon County, Wisconsin, late Surgeon 25th Regiment, Wisconsin Infantry.

WM. H., æt. 55, former, of irregular habits, came under my care in the early part of April, 1868, on account of severe and constant pain in the arm, commencing in its middle third and extending down along the outer aspect of the forearm to the hand and fingers. He attributed the pain to exposure to cold and wet for a number of days in a cranberry marsh in the fall of 1867, and supposed it to be of rheumatic origin. He has been subjected without benefit to a great variety of medical treatment at the hands of irregular practitioners, all of whom corroborated his own opinion respecting the nature of the disease. The pain is described as deep-seated; lancinating at times, very persistent, and so severe, especially at night, as to deprive him of his rest and cause him extreme suffering.

There was no discoloration of the affected part, or tumefaction of the integuments or of the soft tissues beneath, nor was pain complained of on making firm pressure; it was thought, however, that a slight enlargement of the bone at its middle third could be felt, especially on comparison with the sound limb, but the difference was not so manifest as to relieve the mind of doubt. The man's general health is good. Were it not for the