cysted pus collection all around the uterus and filling up the entire pelvis. Her symptoms demanded an immediate abdominal section. The patient was prepared for an abdominal operation, and celiotomy was done in the amphitheater before a class of students.

The condition within the pelvis was complicated with a general infection of the peritoneum. Two large pus sacs were bound up in dense adhesions, which attached them to the uterus, omentum, pelvic walls and small intestine. It was with the greatest difficulty that the sac walls could be detached from the surrounding structures, but after careful dissection I succeeded in removing the sac walls and in clearing out the pelvis. The ileum was intimately attached to the sac wall, and was perforated at several points with drain canals, which had discharged pus into the intestinal canal.

It was necessary to resect over six inches of the bowel before two suitable ends for approximation could be secured. The peritoneal layer of the bowel was already inflamed, and I had grave doubt of success from an end-to-end approximation, yet it was the only procedure I could adopt in her case.

The ends were cut off as far away from the diseased portion of the bowel as I could get. The distal end—that next to the colon—was tied down in the pelvis by adhesions, and I was forced to place the button in the pelvic fossa. The abdominal gauze drain was packed into the pelvis to wall off the intestine from the infected area, previously occupied by the pus sacs, and also to provide for the escape of leakage in case of a break in the bowel at the point of apposition. The entire operation lasted over two hours, and the patient was greatly shocked when taken off the table. For forty-eight hours her condition seemed favorable. After the second day symptoms of general peritonitis and of septic infection set in, and she died on the fifth day.

A post-mortem was made to recover the button, and to determine the condition of the bowel. The abdomen and pelvis were filled with a serous exudate. The entire peritoneum was infected. At the line of approximation a small break in the bowel had occurred from sloughing. A fecal fistula had been made at this point. The button was *in situ* and union had occurred all around, except where the fistula had formed. The patient died from septic peritonitis.

CASE 5.—This case is one of unusual interest from a number of standpoints. During the first week in September, 1898, a bright mulatto girl, 18 years of age, was admitted into the University Hospital with the history of an acute gonorrheal infection. According to her statement her illness began the week prior to her admission. At the time I made my first examination she was in the midst of an acute salpingitis and general pelvic peritonitis. The physical signs showed a large cystic mass which completely filed her pelvis and extended well up above the pelvic brim. The tumor mass was tense, boggy and firmly fixed. Her symptoms demanded an immediate abdominal section. Preparation was made and the abdomen opened at my regular clinic hour, on October 5.

I found the intrapelvic organs a perfect mass of adhesions. The uterus, tubes, ovaries and a large coil of the ileum were tied up in such confusion that it seemed next to impossible to untangle and enucleate the mass. Pus had burrowed in every direction, and was in free communication with the intestines. The greater portion of the tumor mass was made up from coils of the bowel, which had gotten down in the pelvis behind the uterus, and was attached to the pus tubes at every point. After a long and careful dissection the bowel was liberated from the incarcerated mass and drawn up out of the pelvis. It was folded up in the sterile towels and held out of the way until the diseased tubes and ovaries could be removed. After the toilet of the pelvis had been carefully made the bowel was examined with more care, and it was found necessary to resect twenty-six inches of the ileum. The end-to-end anastomosis was made with a Murphy button. The pelvis was then packed with a large gauze drain, and the abdomen closed around the drain canal.

The patient was on the table over two hours and was greatly shocked by the operation. Her condition for twenty-four hours was very critical, but after this she rallied from the shock, and at no time since showed an alarming symptom. The abdominal incision was infected from the pus, which unavoidably leaked out during the operation. This led to an extensive cellulitis and made the reopening of the wound necessary, as far down as the peritoneal layer. The gauze drain was removed after the fifth day. A fecal fistula was then discovered opening into the drain canal. Constant irrigation and repacking of the drain canal was kept up, and no trouble followed this condition. The patient's bowels moved regularly, and liquid nourishment was given forty-eight hours after the operation. Solid food was allowed after the second week. The button was removed from the rectum on the twenty-fifty day.

Of this series of five cases, four have recovered and as far as my information goes, are living at the present time. Case 1 has not been heard from for two years; when last heard from her health was good. Case 2 is living in Baltimore and has had no complications growing out of the resection of the bowel. I have seen her within the last thirty days.[2] Case 3 was living and in vigorous health when heard from less than six months ago. Case 5 is of too recent date to present a history of complications. The criticism urged against the Murphy button, that it leads to stenosis of the lumen of the bowel at the site of union and to intestinal obstruction, does not, up to the present time, apply in this series of cases.

SOME CLINICAL OBSERVATIONS IN RECTAL DISEASES.*

BY B. SHERWOOD-DUNN, M.D.

Officier d'Académie; National Delegate to the International Gynecological Congress, Amsterdam, Holland, 1899.

BOSTON.

There is no surgeon of much experience in rectal surgery but has encountered from time to time cases of

PRURITUS ANI

that defied all his efforts for relief. I have lately discovered, in several of my cases, a cause for chronic pruritus, which has heretofore escaped my attention, and may possibly not have been observed by others. I therefore speak of it in the hope that it may be a source of enlightenment in many cases that have perplexed physicians. I refer to the discovery—in three late instances—of a small superficial ulcer placed between the internal and external sphincters, showing on the posterior surface, but which may be also sometimes found on the anterior surface of the gut, and in the latter situation is very likely to be unnoticed. When one is at a loss to account for any case of pruritus ani, I would therefore advise that this little ulcer be looked for. I call it "sim-

[2] See foot note, p. 1194.

*Presented to the Section on Obstetrics and Diseases of Women, at the Fiftieth Annual Meeting of the American Medical Association, held at Columbus, Ohio, June 6-9, 1899.

ple ulcer of the rectum," because of the fact that its borders are only slightly elevated, and the ulcer itself presents only a very small, minutely-granulated surface, and may easily escape the tactile sensation when the surgeon makes a rather hasty examination. It needs to be looked for carefully. Many physicians, in examining the rectum pass the index finger high up in the bowel, whereas the ulcer which I am describing is situated inside the first two inches from the anus, or, to be more exact, is always to be found between the internal and external sphincters. It takes very little experience to be able to differentiate between the ordinary smooth mucous membrane and the roughened surface presented by this small ulcer. There is always a certain amount of discharge from it, which is very liable to be overlooked because of the excoriated condition of the external anal borders—arising from the patient's rubbing and scratching the parts, which causes a certain amount of sweating from this irritated external surface—and which condition is liable to cause the examiner to overlook the possibility of an internal, minute discharge. It is unnecessary to say that no amount of local treatment will cure the pruritus until this cause is discovered and treated.

I will only say in addition that if one wishes to make doubly sure as to the presence of this local ulcer, it can be seen by passing an ordinary rectal speculum, remembering always, however, that as the speculum is passed into the bowel, the tissues are pressed upward and displaced from their normal position, and one must allow for this displacement when searching for the ulcer; also this stretching of the tissues causes the base of the ulcer to bulge, and, as a rule, the lower border is higher than the upper, and hides the base of the ulcer from view, and it is well to press down the tissues with a small probe or sound and examine the surfaces in their complete continuity. The livid color of the ulcer as compared with a healthy mucous membrane is another point of recognition, and it is rather prone to bleed; and in this event the simple wiping of the surface with a pledget of cotton exposes a small spot denuded of its normal covering.

This ulcer should be treated in the same manner as all rectal ulcers. It is hardly necessary for me to go into a discussion of this part of the subject, except that I might say that in cases where I can not give radical treatment, and the patient must visit me at my office, I deaden the field by the use of a 4 or 5 per cent. solution of cocain and apply pure lactic acid spread on cotton wool to the surface of the ulcer. This turns the ulcer a brownish color. After allowing to remain for a moment or two, I wipe away the surplus acid with dry cotton wool, ordering the patient to inject, with an ordinary syringe, two ounces of a 25 per cent. solution of hydrogen dioxid morning and evening, and, if possible, directly after each movemet of the bowels.

RECTAL ULCERS.

I know of nothing in surgery that is more difficult of treatment than rectal ulcers. It is necessary at the outset to persuade one's patient that he is liable to a great deal of annoyance and trouble, and must have infinite patience if he is not in a position to enter a hospital and submit himself to radical curative measures.

To those who see these cases in the dispensary practice of the out-patient clinic of the charity hospitals, I would cite one or two instances that have come under my observation, which have taught me to give more than ordinary attention to patients complaining of symptoms referable to the rectum, and may persuade my hearers to be careful as to how they temporize in many of these cases.

During my service at the Broca Hospital, Paris, there came to the out-patient department a young woman suffering from pruritus ani, which on examination, I decided was caused by a fissure I found present, and in the press of examining the many patients in attendance I prescribed a lotion and ointment, and told her to come the following week to report and have a renewal of her medication. Two weeks after this one of her neighbors came for more medicine, bringing the girl's card and saying she was too ill to come herself. I elicited a sufficient history of the girl's symptoms and condition to persuade me that she should be brought for examination, and I gave the woman money to hire a cab and return with the girl. On her arrival I found she had a temperature of 102.5, rapid pulse and heavily-furred tongue, with a history of several days since the last movement of the bowels. On examination I found a double ischiorectal abscess with widespread external inflammation. The abscess on one side, which had pointed, was opened on the examining-table, and several tablespoonfuls of most foul-smelling pus evacuated. The girl was then placed in one of the wards and the following day the abscess on the opposite side was freely opened. Both cavities were curetted, washed out aseptically and packed with iodoform gauze, and while under an anesthetic a complete rectal examination was made. A not very large ulcer was discovered above the internal sphincter, which, by gradual process, had formed sinuses that gave rise to bilateral abscesses, and the serious condition in which the girl was at the time of her admission. At the end of one month's daily treatment, the patient was discharged, but was re-admitted six months later for treatment of a fistula that remained from one of the external openings of one of the abscesses, and was discharged cured three weeks later.

The other patient was a woman 42 years of age, who was treated for about a month, for pruritus, which was supposed to be caused by a local fissure; then for about two weeks the patient absented herself from treatment, and at the end of this time came to the hospital in a cab, with an enormous ischiorectal abscess, which I freely opened the following morning, when I found that it arose from an opening in the bowel fully six inches up. The temperature immediately fell to normal, and the patient rapidly recovered. I kept the large free opening made into the abscess open for several days, by means of packing, while I had made a flexible wire curette with which I scraped the walls of the sinus with one finger in the bowel, and later with the hand of an assistant externally on the abdomen, pushed the bowel downward. Free liquid movements were maintained by saline cathartics, and this patient left the hospital at the end of six weeks.

I call attention to these two cases to show that there may be serious trouble back of a fissure that may cause a tormenting condition of pruritus, and to emphasize the necessity of giving more than ordinary attention to the examination of cases that come to us complaining of symptoms localized to the rectum alone.

I will cite one more case which is interesting because of the rapid recovery of the patient, following a new line of treatment adopted in this instance. The patient, a male aged 43, came to the office complaining of a boil on the buttocks. On examination I found a small suppurating point located about one inch from the anal opening, which exuded pus freely on pressure, was exceedingly sensitive, and tender, the external surface showing a widespread inflammation, with absence of local induration, showing the presence of an abscess,

rather than a boil, as the patient had described. I told him my suspicions, gave him directions to completely empty the bowels, and confine himself to liquid diet. Three days after I gave him a careful examination under an anesthetic, having made all the necessary preparations to operate. I found a small ulcer just below the internal sphincter, and readily discovered, by the aid of a probe, that it gave rise to a sinus, which I freely opened into the bowel in the usual manner, thoroughly curetted the abscess cavity and the fistulous tract, carefully washed it out with pure hydrogen dioxid, and, commencing just above the superior border of the ulcer in the bowel, with large-sized catgut carefully stitched the incised parts together with continuous suture, carrying the sutures sufficiently deep to incorporate all of the parts separated as it came to the external opening. With the aid of a speculum I packed the bowel with strips of iodoform gauze, constipated the patient by the use of opium, and for five days allowed nothing but concentrated liquid food and a small quantity of acidulated water. The sixth day the first suture beyond the anus separated, and careful examination showed that the parts were healed by first intention. I removed the gauze and thoroughly cleared out the bowel by the aid of Husband's magnesia and hot lemonade, which, by the way, I have found the most satisfactory of all forms of purge for all abdominal operations, as it invariably gives thoroughly liquefied stools from the very first. At the end of the sixteenth day this patient was out of bed, and in three weeks was dressed and out of doors.

419 Boylston Street.

ON THE RELATION OF DISEASES OF THE ACCESSORY CAVITIES TO DISEASES OF THE EYE.*

BY J. H. BRYAN, M.D.

WASHINGTON, D. C.

The relation between the diseases affecting the accessory sinuses of the nose and those of the orbit and its contents is such an intimate one that it seems strange so little has been done in the past in the way of clearing up the hazy ideas that have hitherto existed as to the influence of diseases of these pneumatic spaces on diseases of the eye. Indeed, in the ophthalmologic handbooks and text-books of to-day, very little on the relation of orbital diseases to the suppurative affections of the accessory cavities has been written, authors contenting themselves with a brief mention of some of the more decided orbital complications which have their origin in the pneumatic cavities.

This is the first time in America, I believe, that a joint meeting between the rhinologists and ophthalmologists has been held with the view of jointly studying these oftentimes very obscure and serious affections. I feel such a discussion can only be followed by the best results, for there is no region where so much depends on the harmonious action of the two specialties in order that the patient may be relieved from intense suffering, an eye preserved, or a life saved.

It is probably a matter of assurance to many of us that, if a better understanding of these diseases had only existed, cases of so-called supraorbital and infraorbital, or optic neuralgia would not have been treated so long without benefit, some of which have gone to the verge of excision, only to find the nerves were not the seat of the disturbance, but that one of the cavities adjoining the nose was the source of the trouble.

The eye, partially surrounded by the accessory cavities whose thin walls go to make up the walls of the orbit, is very sensitive to any pathologic condition that takes place within them, and presents symptoms in many instances which, when carefully considered, will enable the surgeon to definitely locate the source of the disease. It is my custom to submit all such cases, no matter how trivial they may at first appear, to a most searching ophthalmologic examination. In this way I have been able to locate some obscure affections of the accessory sinuses, which would have been most difficult to recognize by rhinoscopic examination alone.

It is to Dr. W. H. Wilmer and his assistant, Dr. Greene, who have made most of the ophthalmologic examinations of my cases, my thanks are due for the painstaking care which they have practiced in making the searching examinations that such cases require.

Several of the cases I propose to briefly mention in this paper have been previously reported to the American Laryngological Association, but short abstracts will here be made of them in order to illustrate some of the points I desire to elucidate.

As in diseases of the nose, the affections of the frontal sinuses are frequently accompanied by ocular reflex disturbances; but they are frequently overlooked because of the difficulty in making a diagnosis of the diseased condition of the sinus. The reflex symptom most frequently observed in diseases of the frontal sinus is above all neuralgia of the supraorbital nerve, and it is present in both the acute and chronic forms of inflammation affecting the cavity. It occasionally happens that this symptom has been present long before the characteristic secretion makes its appearance in the nose. This neuralgia is not always constant but frequently occurs at regular intervals, and it does not always correspond to the diseased area, but may radiate to the parietal and temporal regions of the affected side. I have also occasionally noticed it to extend to the opposite side. This is probably one of the most frequently misinterpreted symptoms, puzzling not only the general practitioner but the specialist also. When we take into consideration, however, in the majority of cases of frontal headache either constant or intermittent in character, that there are other evidences of sinus disease, such as pain on pressure above and below the supraorbital ridge, especially at the inner angle, accompanied by a unilateral discharge of mucus or pus from the corresponding nostril, it seems difficult to understand why its true significance should not be more frequently understood.

The frontal sinuses vary in size to a great degree in different individuals. After an examination of 120 skulls, Herbert Tilley found the sinus large enough in some instances to contain an ordinary bean, while in others it was ten times as large. He considers a sinus normal where it measures 28 mm. from the median line outward, and in the vertical extent measured from the nasion from 20 to 22 mm. The size of this cavity, where the seat of a catarrhal or suppurative inflammation which is the most frequent pathologic condition met with, has a very important bearing on the ocular symptoms; much depends also on the depth of its floor, and on the thickness or thinness of its walls.

The secondary changes in the orbit, due to frontal sinusitis, are of the greatest interest, and they may be brought about simply by mechanical pressure, resulting in change of form of the orbit, in a displacement of the

*Presented to the Section on Ophthalmology, at the Fiftieth Annual Meeting of the American Medical Association, held at Columbus, Ohio, June 6-9, 1899.