the good influence of the family physician will be preserved; medical men in the community will take advantage of the daily discussions and gradually broaden their point of view of medicine; this method of group study will maintain the advantages of specialism and do away with the disadvantages. Clinical reports from this work bearing on these predictions are now being prepared for publication.

It may be said that the type of group study as now practiced in general hospitals is unsatisfactory. The assignment of cases to departments for treatment is often determined by the patient's complaint without previous investigation by the various departments, which is comparable only to the methods employed by the general practitioner. Group study to be profitable must not only provide for the treatment of the complaint which causes the patient to seek advice but also aim at the discovery of hidden departures from the normal in order that proper therapeutic and prophylactic measures may be recommended to the end that the individual's future health may be conserved.

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THE TREATMENT OF INTERNAL HEMORRHOIDS, BLEEDING SPOTS AND VILLOUS TUMORS OF THE RECTUM BY THE HIGH FREQUENCY CAUTERY *

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No matter what the argument, there will always be a number of people who will balk at the word "operation." In the palliative treatment of hemorrhoids the best that can be expected is relief, as the name implies, and the degree of this palliation is speculative. If the piles are of the external variety, whether the tumors are inflamed or not, the subcutaneous injection of a 2 per cent. solution of cocaine, alypin or other local anesthetic, followed by excision and the loose horsehair suture of the edges of the wound, will give good results, and the patient scarcely realizes he has had an operation.

In the treatment of the internal variety the quacks have always been popular, in that they risk infection, abscess and other dangers when they inject their patients with phenol (carbolic acid) solution. There is no doubt that they have cured some patients, but it is equally true that they have produced intense suffering, and in many cases their treatment has led to fistula. I recall one case in particular of a patient who, after injection for hemorrhoids, developed a fistula with an opening larger than the index finger. Strange to say, the quack "got away with it." However, the lucky patient, who escapes the dangers mentioned, and obtains a cure without the dreaded operation, forgets his suffering and sings the praises of the one who cured him. I am not decrying the radical operation for hemorrhoids. Excision and suture quickly disposes of these tumors. But for the patient who cannot or will not take an anesthetic the method I describe will efficiently, though slowly, give a radical result, and the patient need lose no time from his work.

Several years ago Beer of New York described a method of removing villous tumors, or papillomas, of

the bladder by the use of the high frequency current of Oudin, that is, the single pole current, and cited cases. Later, he published case reports of other operators, among which he included some of my work. This method is now a recognized mode of treatment for these tumors. About two years ago I tried this method in the treatment of a case of bleeding from a nevus growth in the rectum. The usual treatment of this condition has been the application of pure nitric acid by means of a glass rod, with the possibility that the acid might not limit itself to the growth. The result of the application of the high frequency current was excellent. This success led me to try it in a case of internal hemorrhoids. My patient was a man who was willing to try anything except an operation. He had one tumor larger than a pecan and several small ones. It took ten treatments covering three months. (Less than half that time would now be necessary.) The cure was radical and the man did not lose a day from his office. This was in September, 1914. Since then I have operated on quite a number of other patients with internal hemorrhoids, in many of whom bleeding was the chief symptom.

In this work I use the Wappler portable transformer, with Krafft spark gap, and the 110 volt alternating current. This current, stepped up on the rheostat to number 3 or 4 and a very narrow gap, gives a very hot spark at the aluminum electrode, which quickly sears the flesh, with the odor of burning meat. A foot switch is convenient, but not absolutely essential. An electrode of $\frac{3}{32}$ inch aluminum rod set in a hard rubber handle and bent to an angle of 135 degrees with the handle, and covered with thick-walled rubber tube, can easily be procured. This electrode is about 4 inches long, and to make a large burning surface a small shepherd's crook should be made on the end. One can readily try out its cauterizing effect on callus found on nearly every doctor's hand since the advent of the automobile. With the patient in the knee-elbow position and sway-backed, a toothpick around which is wound absorbent cotton, making an applicator $\frac{1}{4}$ by $1\frac{1}{2}$ inches, is soaked in a 4 per cent. solution of any of the previously mentioned local anesthetics and pushed into the anus, being allowed to remain there for about ten minutes, while the apparatus is made ready. The anal tube or speculum is now introduced, the light attached, the anus wiped out if necessary and the electrode applied. (I use a Martin's anal tube, to which is attached my own lamp arrangement, although even a head mirror may be used.)

The application of the electrode differs from that of the electrocautery. The electrocautery is applied to tissue after it becomes red, but with the high frequency electrode the cauterization is accomplished in the gap or arc between the electrode and the tissues. The electrode is of aluminum and does not even become discolored. It is applied to the tumor and then carefully withdrawn until its highest efficiency is secured, as determined by the eschar and smoke. One tumor is thoroughly burned longitudinally with the axis of the bowel. When this tumor has become black, another is given a light dose; that is, one tumor is burned quite energetically and one or two lightly at a sitting, and then the burned area is painted with liquid petrolatum, or, as I prefer, with oil of eucalyptus, 1 in 8 of the oil, and no further treatment of the parts is given for two weeks, or until the sloughs have come away and the parts are clean. There is little or no pain ten

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minutes after a treatment, and the local anesthetic lasts that long. One can hardly believe the statement that the pain of the high frequency burn is so transient; but the burn is severe for a few minutes unless anesthesia is secured.

Having used this method of treatment for several years in the removal of bladder tumors and for nearly two years in the treatment of rectal hemorrhages and tumors, I cannot speak too highly of the results.

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ACUTE PELVIC APPENDICITIS

WITH CASES IN POINT

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An acutely infected appendix is the most frequent and one of the most serious acute abdominal lesions demanding surgical attention. The laity is not alone responsible for the present-day mortality being higher than it should be; this is due in part, I think, to the frequency with which the appendix lies in the pelvis, thereby changing the classic picture of acute appendicitis so materially that we do not always recognize the source of the symptoms sufficiently early to avoid disaster.

We all know how deceptive may be the symptoms in acute simple appendicitis. When the appendix lies in the pelvis the picture may be even more deceptive, since the clinical manifestations are largely dependent on (1) the site of the appendix, (2) the severity and duration of the infection, (3) the presence or absence of adhesions, (4) the state of health of adjacent organs, and (5) the character of the treatment. The cases herein reported emphasize these facts.

Pain is invariably a prominent symptom. It differs from the classic in being situated lower in the abdomen and more diffuse in character; in many cases it is referred to adjacent organs. The absence of localized pain at McBurney's point is one of the most frequent causes of our failure to recognize the disease. In many cases the pain will be most severe just above and to either the right or left of the pubes. In several of my cases it was referred to the bladder, while in others the patient complained of persistent severe pain in the epigastrium. Sudden cessation of severe pain may signify perforation; in any case it does not necessarily mean improvement.

Abdominal rigidity is nearly always present, but the impressive feature in these cases is the finding that both recti are rigid; the rigidity is not limited to the right rectus, although it usually is more rigid than the left because the site of inflammation is usually to the right. The left rectus may, however, be more rigid than the right. This is a frequent cause of confusion in making a diagnosis in these cases.

The characteristic point tenderness midway between the umbilicus and the anterior superior spine of the ileum, as described by McBurney, is absent because the field of action has shifted to the pelvis. This finding is quite misleading unless the practitioner recalls that the appendix frequently lies in the pelvis. Pressure made over McBurney's point may not cause any pain whatsoever; pressure over a corresponding point on the left may incite severe pain. Rectal examination may show an inflammatory mass in the pelvis.

Vomiting is usually not a persistent symptom. When the inflammatory process is advancing upward it may be more or less constant. It usually follows the initial pain of onset, but may precede the pain. If the appendix becomes adherent to coils of small intestines causing ileus, vomiting becomes a very prominent and persistent symptom.

Flexion of the right leg is usually absent in cases of acute pelvic appendicitis. The reason is obvious. Late in the disease, however, both limbs will be found flexed.

The pulse, temperature and blood findings do not differ from those observed in classic cases.

The diagnosis of acute pelvic appendicitis requires a careful consideration of the previous history, the mode of onset of the present attack and the shifting of the symptoms from the epigastric to the hypogastric and inguinal regions instead of to midway between the right anterior superior spine of the ileum and umbilicus; the physical findings will eliminate primary involvement of the adjacent pelvic organs. The mere fact that the symptoms began as an appendicitis and the picture still resembles the clinical manifestations of a diseased appendix, although the characteristic McBurney point tenderness, etc., are absent, should lead us to make a provisional diagnosis of acute pelvic appendicitis. This is especially true if examination then shows absence of disease of the adjacent pelvic organs; an immediate operation is called for. It is not necessary to have the classic picture of appendicitis to make a diagnosis of appendicitis. The preponderance of the symptoms, and the fact that the patient is suffering from some acute pelvic lesion which is not due to an acute pus tube, should warrant immediate attention. We all know that when the appendix is adherent to the bladder or to the peritoneum overlying the ureter, the patient will often complain of bladder symptoms and the urine may contain blood and pus (Cases 1 and 4). We also know that the appendix may become adherent to the rectum or ovary, or possibly to an infected tube, thus causing symptoms of acute infection in the respective organ.

In any case the clinical manifestations indicate clearly an acute abdominal lesion demanding early attention. If in doubt as to the diagnosis, the physician should place the patient in Fowler's posture, administer saline proctoclysis according to Murphy's method, and withhold all purgatives, food and opiates. Purgatives only increase peristalsis and the possibility of perforation. An enema is preferable. If the symptoms persist at the end of six hours, a consultation should be held.

The treatment of acute pelvic appendicitis does not need comment. We all know that immediate operation saves practically every case of appendicitis. The contention that we should wait until the inflammatory process becomes localized is simply preposterous; Murphy has shown how erroneous is this thought. Morphine administered before operation kills many patients. I do not think it necessary for the practitioner to make an accurate diagnosis before he recommends operation in these patients presenting the clinical picture of an acute abdominal condition. We really best serve the patient by calling surgical consultation in these cases before the distended abdomen, the persistent, agonizing pain, the high temperature, the vomiting, the rapid pulse and the anxious expression tell the tale of too much "watchful waiting."