Multiple Adenomata of the Rectum and Colon.

(a thesis for the M.D. degree)

by

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Introduction.

Until comparatively recently this disease was regarded as identical with simple adenoma, or polypus, of the rectum. Itain, in 1855, described a hard and a soft variety, but did not refer to the multiple form.

Dürer and Landel collected forty-two cases, including a description of two cases occurring in their own practice, and they pointed out the pathological differences which distinguish the single from the multiple growths (1). The condition described is a very rare one, and scarcely any mention is made of it in the latest textbooks. For example, in Northagel's Encyclopedia of Medicine it is only casually mentioned, and no description is given. Even in some of the books dealing exclusively with diseases of the intestines or the rectum, this disease is omitted, or, at best, gains only a slight notice, as, for example, in Hemmets large work in two volumes (Blackston, 1901). Goodsmull and Miles in "Diseases of the Anus and Rectum," Pt. II. (Longmans, Green & co., 1905) do not refer to Multiple Adenomatous. Stanford Edwards, senior surgeon to St. Mark's Hospital, in "Diseases of the Rectum, Anus and Sigmoid Colon" (Churchill, 1908) dismisses the subject in this sentence: "The tumors are generally single, but sometimes multiple, and in very rare cases disseminated over the bowel." Harrison Gripps in "Cancer of the Rectum"
(Churchill 1890) describes and illustrates a case of dis-
located polypus which ultimately became malig-
nant (11). Prof. Sir Cho. Ball in "The Rectum and
Anus—their diseases and treatment" (Caswell and Co. 1896) states that he has had experience of one case only, that
Cripps has had two cases, and that Luschka (11),
Billroth (10), and Richet (5) have described cases,
and, furthermore, there are only three specimens in
the pathological museums of London. The subject
of the Erasmus Wilson Lectures delivered by Sir Cho. Ball
before the Royal College of Surgeons in 1903 (11) was, in the
first of the series, "Simple, Multiple, and Congenital Ad-
enoma of the Rectum," but in this there is little re-
ference to the multiple form. Sir Cho. Ball states "In the
large majority of cases pedunculated adenomata are
simple, occasionally they are multiple, and in rare
instances, large tracts of mucous membrane are com-
pletely covered by them" (11).
Considering the apparent rarity of the disease, it is re-
markable that I have treated three cases in Wilting-
ton, New Zealand, in the course of 15 years general
practice, and I have heard of only one other case
in New Zealand (a hospital case); the rarity of the dis-
 ease appears to warrant a detailed description.

Etiology.

The literature on the subject furnishes no support
to the view formerly held that multiple adenomata
are the result of a simple adenoma in childhood.
It is a disease of middle life, a very small proportion
of patients being under the age of 16. It has been said that this disease is the result of general lymphatic hypertrophy associated with adenoids, but I have observed nothing to support this view. It is highly probable that multiple adenomata of the rectum owe their origin to some infectious agent, the nature of which is still obscure (17). Many cutaneous papillomata and also nasal polypi have a microbic origin and the analogy is certainly suggestive. Syphilis is a pre-disposing cause of inflammation of the rectum, for which specific treatment is little use (18). No doubt, the irritation of faeces and of discharges tends to promote the growth of these neoplasms. Sir Charles Bell (16) points out that adenomata are caused by a friction of clothing on prolapsed rectum, or on the exposed mucous lining of a colotomy wound, or in cases of cancer of the rectum, with profuse discharge, and in a case of hair-ball impacted in the rectum, Bellelli (10) of Alexandria, records a case of adenomata of the rectum associated with the presence of the oes of bilharzia. Distribution. "The condition is said by some to be an affection of the colon, and not of the rectum; yet, as a matter of fact, they are rare in the industrial canal unless the rectum and pelvic colon are also involved" (21). John states that they begin in the rectum, and gradually extend upwards and out of fifty-two cases adenomata existed in the rectum in at least forty-eight, and in only fifteen cases were
They confine to this portion of the bowel. A. E. Maylard in his work on "The Surgery of the Alimentary Canal" states that the growths spread from the rectum into the colon (217).

**Morbid Anatomy.**

The tumours vary in form and in dimension. They are of a bright red colour, but the colour depends on the vascularity. They are soft, hardening passing to a tendency to malignancy. The pedicle is formed of mucous and submucous tissue and blood vessels. The smaller growths are pedicle, and the larger ones have a short and broad pedicle, whereas the pedicle of a simple rectal polypus is long. There is always Praecocious Symptoms.

There are mainly haemorrhage, diarrhoea, pain and exhaustion. The haemorrhage is very profuse, large quantities of bright red blood being passed, occasionally mixed with altered and decomposed blood with a very offensive smell. The stools are small and soft, and mucus also is passed. The diarrhoea is exceedingly troublesome, owing to the frequency of the motions, and the accompanying piping and tenesmus.

The amount of pain depends partly on the situation of the growths. When they are confined to the rectum, the patient has comparatively little suffering. If they are very large the mechanical obstruction adds greatly to the pain. The exhaustion arises from pain, diarrhoea, loss of blood and to a great extent from peptic absorption; and when the symptoms are controlled, the patient
...to well, and gains rapidly.

**Diagnosis.** The growths can be seen and felt, and examined microscopically. When there are more than one or two growths in the rectum associated with tenesmus and gripping, clear local and hemorrhage it may be ordinarily assumed that there are others higher up (xii, xiii). The sigmoidoscope should be useful, but I have had not experience of its use. Prof. Tuttle demonstrated the use of his instrument in England in 1907.

**Differential Diagnosis.** The disease is mainly to be distinguished from Amebic Colitis, Chronic Dysentery, Tuberculous ulceration, Ulcerative colitis and cancer.

**Relation to Adeno-carcinoma.**

In the collection of forty-two cases already referred to, less than twenty became malignant, in some cases even after removal of as many as possible of the adenomatous. In the three cases which I observed, there has been no suspicion of malignancy after several years. It may be possible that some of the forty-two cases were adeno-carcinoma from the beginning. Many pathologists hold that adenocarcinoma from its inception is essentially different from the benign variety of adenoma, and that the transition of the latter into the former does not occur. "It will be useful to point out that although adenoma and carcinoma may, and often do, co-exist in the same gland, an adenoma never becomes transformed into cancer." (xiv). Some authorities believe that adenomas may be transformed into epitheliomata (xv, xvi). From the clinical point of view we find an analogy in the cutaneous wart, which may remain benign (in most cases) or become malignant (in some cases).
Papillomata or Villous growths.

This is a rare disease of the Rectum, and may be mistaken for Multiple Adenomata, but villous growths of the rectum, as of the bladder, are shaggy, and studded over, in typical cases, with little tufts. Like Adenomata, they may be single or multiple, sessile or pedunculated, and they have a tendency to malignancy. It is likewise a rare condition, twenty-five cases having been recorded in St. Mark's Hospital in thirty-five years. They are equally common to males and females. Mr. Allingham, in his wide experience, saw only four cases.

They produce symptoms similar to those which result from Adenomata, but from villous growths of the rectum there is a characteristic discharge which resembles thin muceilage. If they are not within reach of removal, Darwinford Edwards recommends left original colostomy or resection.

Ball states that while the lobes in villous tumour of the bladder are filamentous, in the rectum they are often flattened or club-shaped, and therefore it is evident that from naked-eye appearances there is a liability to confuse villous growths with Adenomata.
It will be convenient to deal with Treatment after the following cases have been described:

Case 1.

The patient was a master bricklayer, aged 57. There is no history of ascitis, and he has enjoyed good health except that he has been subject to occasional attacks of diarrhoea, not associated with vomiting. Twenty-seven years ago, he was seriously ill with this complaint, and ten years ago from the same cause was in bed for three weeks. In the intervals, his bowels have acted regularly once a day. His normal weight is 102 lb.

I first attended him on Feb. 12, 1905. He had suffered from diarrhoea and the passage of mucus for four weeks previously. Blood first appeared in the stools on Feb. 9, and in two or three days became very copious. He was emaciated, delirious and delirious, suffering great pain, vomiting frequently and at death's door. He was given liquid diet when feverish, but light solid food at other times. His temperature ranged in the evening from 103° to 104°. Bad-smelling liquid stools, blood and mucus were being passed about every hour. Palpation of the abdomen revealed slight resistance on the left side.

Several growths could be seen and felt, tending upwards two inches from the anus and they appeared to involve the colon. The mucous membrane was inflamed but not eroded. On Feb. 20, a colleague, believing the disease to be cancer, advised colotomy, but the patient refused the operation. A growth was removed for microscopic examination and Dr. Mackay of the Government Labor-
story reported as follows: -

"Section shows tumour to be composed of adenomatous tissue. The epithelial cells in glands and on surface are of the mucoid type, evidently actively secreting. The cells show no tendency to invade the supporting tissue, nor are they markedly proliferating. The connective tissue is highly vascular. Fibrous tissue is scanty, a few bands only being present. I consider the tumour to be an adenoma of innocent nature, probably best described as a mucus polyp. An examination shows no amebae-like bodies, no parasitic eggs and so forth. There is, of course, a great variety of micro-organisms present, chiefly of a putrefactive type."

The treatment adopted was the administration of tincture of opium and salicylate of bismuth and irrigation of the bowels with very weak antiseptic solutions (formic acid, acetone 1 in 3,000, 2 parts of silver) for a period of once a day, sometimes by a nurse, and sometimes by myself. The patient was first put in the knee position with the hips elevated. 1/2 to 2 parts of the solution were retained and the patient gradually rolled to the dorsal position and then to the right side and then the position reversed. After three weeks an irrigation was used only once a day, and after six weeks only every second or third day. The patient steadily improved and at the end of three months, hamour has had entirely ceased.

Towards the end of July he complained of a constant bearing-down pain and chloroform was given and I opened
Case II.—

A draper aged 35. Relatively all healthy. Had suffered at intervals from indigestion. His illness began in May, 1906, with diarrhoea, pain, and tenesmus, and the passage of clear mucus. I first attended him on July 9th, and he had been passing blood and very offensive motions for a week previously and had lost 12 ounces in weight.

Examination by sigmoidoscope under an anaesthetic revealed the same condition as in the previous case. Soup was the only article of diet that aggravated his condition. The same treatment as formerly used was adopted but he showed great tendency to relapse, but at the end of a year almost regained his health and has continued steadily at his work ever since. He is nervous and neuroasthenic since his illness.

The only abnormality in his rectum at present (Oct. 1912) is a cicatrical band, which, however, causes no pain or obstruction. This case had also, I believe, been diagnosed as cancer.

Case III.—

This is interesting owing to a modified, and, I believe, unproved form of treatment. The patient is a clerk.
aged 32. He is an only child; both parents being aged about 60, and in good health. He has suffered only from occasional attacks of influenza. No tuberculosis or other hereditary tendency. He suffered from pain, tenesmus, and the passage of blood and mucus for two years up to the end of 1908 and had lost about two stones in weight.

In January 1909, examination revealed several definite adenomata in the rectum. Consideration of these within reach caused the bleeding and purgation, as formerly, were used. Considerable improvement took place, but the patient neglected treatment as soon as he felt better; and was difficult to control, and having read of the good effects of Appendicectomy in cases of Chronic Colitis (XVII), I determined to apply this surgical aid to treatment. About two gallons of plain terrestrial water were passed through the bowel daily, entering by a Gum-elastic catheter in the appendix opening, and passing outwards through a rectal tube. After a few days, two irrigations of weak Cordifluid were used daily. At the end of five weeks he left the hospital, having been instructed in the method of irrigation and at this time he had gained rather more than a stone in weight, and had an excellent appetite. Treatment ceased altogether three months after leaving hospital.

**Treatment:**

The results in cases where an artificial anus has been made have been unsatisfactory. A case, with a fatal result of complete excision of the colon for
Membranous colitis is recorded (1811). Seeming away the local growths does not prevent recurrence, and is only a partial attempt at treatment. Administration of drugs by the mouth alone is insufficient. The treatment I have adopted in my own cases has been very successful, and seems to me to preclude the necessity of considering drastic surgical measures. The performance of appendicectomy facilitates the employment of medical irrigations, and is a valuable adjunct to medical treatment.

In these three cases, as far, there has been no tendency to malignancy, but the possibility slight as it appears at present, cannot altogether be lost sight of in view of the statistics of the other collected cases to which I have referred.

Summary:

1. This disease is rare, and I have not seen a detailed description in any text-book.
2. It has its origin probably in traumatic injury. Adenomata result from irritation.
3. When multiple they are seldom confined to the rectum alone.
4. Diagnosis is easy by examination of the stool.
5. None of my three cases has become malignant; multiple adenomata, however, have a tendency to malignancy.
6. Results show that my method of treatment for this disease by irrigation (and Appendicectomy)
References.

(11). "St. Barts Hospital Reports." Vol. XXIII.
(1111V). "Syphilis" by Jonathan Hutchinson.
(111111V). "Bacterial of the Anus Rectum and Pelvic Colon." By Tuttle, U. S. A.
I have been in general practice from 1903-1912.

The work has been done and the thesis composed by myself.

[Signature]
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