

# Recto-Sigmoid Endometriosis

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*Colorectal endometriosis is sufficiently uncommon to warrant reporting as is evidenced by the number of single case reports in the literature. It is, according to statistics quoted from paper to paper, common enough to present one or more times in a life time of surgical experience. The following is a report of a case which was treated recently at St. Luke's Hospital.*

## Case Report

Mrs. A.J. a 44 year old Maltese woman was referred on 2-9-83 to the Surgical Out-Patients' Department with pain in the left iliac fossa and constipation. The pain was colicky and intermittent and had been present for some two years. It was not evidently related to her periods, although her constipation, which was of long standing seemed to be worse with periods.

Her periods were regular, heavy and fairly painful. In January 1981 she had been referred to Gynaecology Out-Patients at St Luke's Hospital for vaginal discharge, pain in LIF and constipation. Vaginal examination showed a cervical erosion and a bulky uterus. The adnexae were normal. A PAP smear was taken. When seen in Surgical Out-Patients' clinic in September 1983 her general condition was good. Her abdomen was soft; there was vague tenderness in LIF. An IVP was requested and a note entered that she was to have an investigation of the colon in due course. Her IVP was normal and she was referred to Gynae. Out-Patients' with the possibility of an ovarian cyst. On 29-10-83 she had a D & C and an examination under anaesthesia in the Gynaecological Department. The cervix was now healthy, the uterus bulky and "? fixed". Adnexae were reported as normal. The curettings were reported: *Dys-synchronous and hypersecretory endometrium - 2-11-83 (Dr H).*

She was then referred from Gynae to the Orthopaedic Department. This was because of the severity and persistence of the pain and its tendency to radiate to the region of the left hip. Her orthopaedic assessment was negative. She was seen again in SOP on 4-11-83. She was not in pain at the time but complained of severe constipation requiring regular dosing with laxatives. P.R. was negative. A Barium enema was reported on 29-12-83 as follows:

*There is a narrow segment about 3" long between the sigmoid and the rectum. The outline is irregular but as the post evacuation film is not satisfactory the mucosal pattern cannot be visualized. Radiologically this is compatible with a Carcinoma but requires confirmation with a sigmoidoscope. The rest of the colon is normal. Sgd Dr S P K.*

On 9-1-84 she was admitted to the Woman's Surgical Ward for sigmoidoscopy and further treatment. On 11-1-84 sigmoidoscopy was performed. (A.K.) Appearances were described as follows:

*Ca sigmoid colon - growth looked like*

*cauliflower, stiff, 17cms above sphincter. Growth occupied only one side of colon.*

A biopsy was taken. This histological report of 2 fragments submitted was:

*Two fragments of large bowel mucosa with signs of congestion. No malignancy in these samples.*

On 19-1-84 she underwent a repeat sigmoidoscopy by the same Surgeon (A.K.). Again the findings were described: *15-17cms above sphincter on anterior wall of sigmoid colon Ca - stiff growth with small ulceration.* Biopsies were also taken. These were reported thus:

*Four fragments of mucosa - Heavy colitis with severe atrophy of mucosa. No malignancy in these samples.*

A third sigmoidoscopy was performed this time by another Surgeon (A.S.) The findings were described thus:

*At 15cms rigid stenosis especially anterior wall of rectum but without cauliflower formation.*

Biopsies were taken. The biopsies were histologically examined and reported by Prof. B thus:

*Heavy colitis with severe atrophy of mucosa. Nest of ? mucinous adeno-carcinomatous formation in lamina propria. Malignancy must be taken into consideration. The sample is superficially taken.*

An ultrasound scan of liver (7-1-84) showed no evidence of 2<sup>o</sup> deposits. The liver texture is normal. (Dr A S W).

The patient underwent operation on 12-2-84 under G.A. (J.A.M.). Through a left paramedian incision the abdomen was explored. A right ovarian 'chocolate cyst' was present. The uterus was bulky and densely adherent to rectum above posterior fornix. The anterior rectal wall in this region felt thickened and hardened. No tumours or other pathology were evident in rest of rectum and colon. Rectal endometriosis was considered to be the diagnosis. An anterior resection of the rectum was performed together with a total hysterectomy and bilateral salpingo-oophorectomy with removal of (R) ovarian cyst. An axial colorectal anastomosis was performed using the EEA stapler gun. This was protected by a caecostomy after appendicectomy. The patient made an uninterrupted recovery. The histological report of specimen submitted for



pathological study was as follows:

1. Uterus with cervix, both adnexae and segment of rectum. Uterus 11×7×5cms. The rectum with the anterior part is closely attached to posterior part of uterus and cervix. No anus in the submitted specimen. Length of rectum 7cms. Circumference of proximal part is 6cms of distal part 4cms, 2cms above distal resection edge, very pronounced stenotic part of rectum 3cms long and 3cms in circumference. Mucosa of rectum smooth, shiny. Muscle sheath of proximal part of rectum highly hypertrophic, 0.8cms. On the anterior wall of rectum corresponding to the adhesions on posterior wall of uterus protruding part of mucosa 3cms long 1-5cms wide. On the cut surface of protruding mass the thickness of muscle sheath 14mm and thickness of mucosa 4mm. Muscle sheath is almost transformed to whitish hard mass occupying both muscle sheaths (no border between longitudinal and circular sheaths). Two sections from rectum.

Smooth wall of uterus up to 2.5cms. Mucosa is shiny, 2mm thick. Left tube 6 × 0.5cms. left ovary 2.5 × 1.5 × 1cm with small haemorrhagic cyst from 2 to 4mm. Right tube 7 × 0.5cms. Right ovary not present. One section from cervix, one section from uterus. One section from left ovary and tube.

2. Cystic ovary 4 × 3 × 2cms with haemorrhagic cyst 2cms in diameter. Cyst with defect on surface 2 × 1cm.

3. Congested appendix 6×0.5cm very narrow lumen. Three sections.

ME: Stenosis of rectum. Endometriosis of rectum. Hypertrophy of muscle sheath of rectum. Recto-uterine adhesions. Left ovary haemorrhagic corpus luteum. Right cystic ovary. Appendix not remarkable. (Prof K B).

Her post-operative course was uneventful. Her drains and urethral catheter were removed on 6th day. By 29-2-84 her wound had healed by primary intention but she was still running a low temperature. A gastrografen enema was requested. This was duly reported as follows:

*There is congestion after operation in the rectosigmoid region. Anastomosis is patent. In the region of the anastomosis the filling of an irregular cavity is visible situated on the Rt side and posteriorly. Conclusion: Finding is suspicious of internal fistula. F/up is suggested. (R.K. - 29-2-84)*

Her low grade fever subsided on 4-3-84 and she was discharged home on 6-3-84. She was last seen in Out-patients' Clinic on 6-7-84. She was well apart from an episode of short lasting abdominal pain in April 1984 and slight constipation. She was to be reviewed in 6 months' time.

## Discussion

A review of the extensive literature on intestinal endometriosis seen shows that the condition is relatively common, essentially benign and must often go unidentified. This latter characteristic is an added reason to warrant the publication of the present case report. No cases of intestinal endometriosis have ever been reported from St Luke's Hospital, Malta. The condition is likely to present to the Gynaecologist as often as it does to the abdominal surgeon. To take the matter of overall incidence first, it is reckoned that about 15% of all women in the reproductive period are effected by **Endometriosis** i.e. the presence of functional endometrial tissue separate from the uterus. Where such tissue is found ectopically but related to the uterus, superficially or deeply in the myometrium the condition is termed *adenomyosis*. About 33% of women with endometriosis have it effecting the bowel. This high incidence, which is contested by some, was reported by G. Kratzer & E Salvati in a study of a series, from Allentown Hospital, Pennsylvania USA of 225 cases (1955). Dr Joseph Pratt in the discussion that followed the presentation of a paper on *Endometriosis of the Bowel* by Dr L A Gray at a Surgical Conference in Florida in 1972 stated that after conducting a study over a 5 year period of cases seen on his service in Rochester, 280 cases of endometriosis were noted. Of this number, 94 (34%) had endometriosis of the bowel. Further breakdown of these figures were not given but it was confidently stated that the rectosigmoid is the most commonly involved region. In Dr L Gray's reply he pointed out that the figure of *about 15% with pelvic endometriosis* described only *relatively marked lesions*.

Jenkinson & Brown reported on a series of 117 patients with endometriosis seen over a period of 3 years (1939 - 1941) at St Luke's Hospital, Chicago. In 47 cases the lesion was situated in the rectosigmoid region of the large bowel (40%). This he compares with Allen's (1933) incidence of 41 in 112 patients (37%) and R. Cathells' series where the incidence was strikingly lower 17 cases in 104 cases (16% - 1937). Counsellor and Masson's series of 162 cases of pelvic endometriosis included 51 lesions of the sigmoid, rectum and rectovaginal septum (31%). Keen & Kinborough's reported incidence of rectosigmoid lesions is the lowest; 6 cases in 118 i.e. 5%. The simultaneous presence of ovarian endometriosis with rectosigmoid endometriosis is less clearly defined. Jenkinson & Brown found 83 cases of endometrial lesions in the ovary and 47 in the rectosigmoid in 117 cases; this suggests that in 13 cases the two lesions were associated. In Counsellor & Masson's series there were 120 ovarian lesions and 51 rectosigmoid in 162 cases of pelvic endometriosis, suggesting that in 9 cases they were associated (i.e. 5.5%).

This fact is of some importance in helping the surgeon to diagnose the condition at laparotomy. In the case we reported a chocolate cyst the size of a grapefruit was present in the right ovary. Considering the figures quoted for pelvic and colorectal



endometriosis it is generally argued that 2 to 4% of all menstruating women may develop endometriosis of the sigmoid, rectum or rectovaginal septum.

### Clinical Characteristics & Diagnosis of Colorectal Endometriosis

The extent and severity of symptoms produced by endometrial lesions vary with the size of the lesions and the degree of obstruction they produce. They tend to be present for longer than 12 months before presenting for treatment; in our case for 2 years. The common symptoms are vague lower abdominal discomfort, or cramp-like pains often associated with the menses, and constipation. The constipation may get worse with time and may also be aggravated during the periods. Bleeding per rectum from these lesions is rare as a presenting symptom, nor is passage of mucus a characteristic symptom. Tenesmus is an occasional complaint. The intensity of the pain and the constipation is related to the degree of constriction which becomes more marked as the lesion and its associated inflammatory reaction progresses circumferentially in the large bowel. In the small bowel kinking may induce obstruction.

### Diagnosis

Many authors emphasize the fact that *correct preoperative diagnosis of this condition cannot be minimized* (Jenkinson & Brown). Definitive diagnosis prior to operation will permit the avoidance of radical resection of the bowel where castration will suffice. Simple excision of the lesion with part of the wall of the colon or rectum is sometimes also possible. Incorrect medical management would also be avoided, where operation is for some reason being postponed. However, in spite of the fact that some authors claim that certain diagnosis can be established in a majority of cases (162 of 179 cases 90%) *from palpation of the disease in the cul-de-sac, uterosacral ligaments and rectal wall* (Laman A Gray - 1972) a review of the literature confirms our impressions that this is not so. In our case, as in hundreds of others reported, pelvic examinations by a Gynaecologist failed to establish the diagnosis. Nor was certain diagnosis arrived at when aided by radiological, endoscopic and biopsy studies. As Kratzer & Salvati point out *the diagnosis of endometriosis of the large bowel is seldom made prior to surgery and when at the operating table it is difficult to distinguish this lesion from carcinoma*.

It is fortunate that in a vast majority of cases of constrictive endometriosis of the rectum bowel resection does not necessitate sacrifice of the sphincter although Cattell (1937) cites a case and Lesh and Hatchcock, in 1955 another case where an abdomino-perineal resection was performed with permanent colostomy, carcinoma being mistaken for endometriosis. Amano & Yamada in 1981 reported a case of endometrioid carcinoma of sigmoid colon 13cms from the anus, diagnosed histologically after endoscopic biopsy as benign adenomatous polyp.

Resection with end-to-end sigmoid-rectal anastomosis was performed with a satisfactory result.

It is thus evident that in general the most accurate approach that is possible is that of maintaining a high index of suspicion when certain differentiating criteria, favour endometriosis. The following differentiating points are of note:

1. The age in endometriosis is slightly younger (25-45).
2. Colorectal carcinoma is seen in males more commonly (65%).
3. There is often marked weight loss in cancer.
4. Constipation in endometriosis is often of long standing and intermittent and sometimes associated with menses.
5. Blood in the stools is common in cancer: rare in endometriosis.
6. Fertility is often below par in endometriosis.
7. Dysmenorrhoea is also not uncommon.
8. At endoscopy no ulceration is seen but stenosis and fixation are common.

At Barium enema a long stricture with *intact mucosa* may be reported. It is also well to remember that castration with or without colostomy may be a sufficient operation in the older patient or the patient with extensive disease where bowel resection would seem to be unduly hazardous.

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