Crohn's Disease in Eastern Nigeria

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Introduction

Regional ileitis was first comprehensively described by Crohn and associates[1] although previous writings describing aspects of the disease abound. [2] Initially believed to affect the terminal ileum it has been described in all parts of the alimentary canal. The disease is most commonly seen in North Europeans with an increasing incidence in North Americans. [3] Isolated reports of occurrence in Blacks have been reported [4-6] though Edington and Gilles[7] suggest the low incidence may be due to lack of awareness. The aetiology is largely unknown [8] but viral infection, [9] trauma, lymphatic obstruction, toxic food substances and congenital anomalies [2] have been suggested as causes. Three cases seen in a four-year period are presented.

Case reports

During the period June, 1989 to May, 1993 there were just under four thousand surgeries (including gynaecologic and obstetric cases) out of a total hospital patient attendance of 25, 000. Iyi-Enu hospital is a ninety-year-old, 284 bedded district mission hospital serving the greater Onitsha area of Anambra State and until the establishment of Nnamdi Azikiwe University Teaching Hospital Nnewi it was the major referral centre in the vicinity. Details of the three cases are given below.

Case 1: A 75-year-old female presented with a 2-month history of increasing constipation associated with small calibre stools. There was occasional diarrhoea and tenesmus. There was neither passage of blood or mucus per rectum. She had a twenty-year history of bronchial asthma though under good control. Examination revealed multiple lipomas on the body. Rectal examination revealed a craggy, constricting, circumferential mass with an intact mucosa 3cm from the anal verge.

The examination finger was stained with altered blood. Abdominal ultrasonography did not reveal any anomaly. At proctoscopy, findings included circumferential thickening of the lower rectum and anal canal starting at 3cm from anal verge with an intact mucosal covering. Under vision biopsy was taken in 4 quadrants. The histologic diagnosis was Crohn's granulomatous colitis. The patient declined further investigations, which were to include barium enema, and was lost to follow-up.

Case 2: A forty-year-old driver presented with fever of one-week duration, right lower quadrant abdominal pain of four days and pain on defaecation. He had a similar but milder episode four years previously, which was treated, in another hospital. Examination revealed pyrexia with right iliac fossa tenderness maximal at McBurney's point. The admitting Registrar made a diagnosis of appendicitis and proceeded to appendectomy, which was abandoned when he noticed extensive matting of the gut. The patient was then treated as a case of appendix mass. He improved and was discharged only to present one month later with severe right lower abdominal pain and fever with an ill-defined right iliac fossa mass. Abdominal ultrasound did not reveal any anomaly. Under broad-spectrum antibiotic cover a formal midline laparotomy was performed. Findings were matted caecum and ileum, both of which had thickened walls, omentum and normal appendix. The caecum had with an indistinct mass, which had perforated laterally walling in 100ml of pus. Right hemicolectomy was performed with primary ileo-transverse anastomosis. The histology revealed Crohn's granulomatous disease. The patient made an uneventful recovery but has continued to suffer occasional abdominal discomfort and pain on defaecation on follow-up for seven years. He was placed on symptomatic treatment as he declined further radiologic or sigmoidoscopic investigation for his condition.

Case 3: A 35-year-old multiparous woman presented six months after parturition with abdominal pain of one week, anorexia and vomiting of two days. The pain started in the infra-umbilical region before being generalised. The patient developed diarrhoea on admission. There was a history of appendectomy four years previously. Examination revealed an anaemic, febrile toxic lady with a tinge of jaundice. There was generalised abdominal tenderness more marked in the right iliac fossa and an ill-defined mass in the same area. Working diagnoses were typhoid perforation with localised abscess, and tubo-ovarian abscess. Laboratory studies revealed anaemia (Hb. 6.9g/dl) elevated ESR of 156mm/1st hour (Westergren) White cell count of 16,500/cu.mm

with neutrophilia, Negative Widal test and no pathology on urinalysis. Ultrasonography showed a conglomerate mass of intestines and abscess spanning the pelvis right up to the right lumbar region'. After necessary work-up and antibiotics a formal midline laparotomy was performed with the following findings: mass involving the caecum and ascending colon with caecal perforation and presence of faecal matter and pus in the enclosed cavity. A right hemicolectomy was performed, a drain inserted in the pelvis with primary wound closure. The patient had a stormy post-operative period with peritonitis but recovered subsequently. Histological studies on the resected specimen revealed Croh'n colitis. She was lost to follow-up after 18 months during which she had no complaints.

Discussion

Crohn's disease believed to be rare in blacks has been identified in case reports from Nigeria, [4] Senegal [5] and the Transvaal Bantu. [6] Edington and Gilles [7] believe that lack of awareness may be responsible for the low incidence. The three cases reported constitute 0.1% of all surgeries and 0.01% of all hospital attendances making it an uncommon pathology.

With the exception of Case 1 the other cases fit the typical patient profile of a 31-40 year age range and an equal sex incidence. Unlike in large series [2] where the large gut in involved alone in 20% all the cases now being reported involved only the large gut. This is similar to the report of Khwaja and associates [4] from Nigeria. The reasons for this selective colon involvement are unknown.

The disease typically presents with chronicity of abdominal pain, diarrhoea and weight loss. [2,9,10] This pain, which is intermittent and noted in the right lower quadrant in 25% of cases has been shown by Drucker [2] to be indicative of Crohn's disease when it becomes constant and associated with fever and tender mass. Perforation and abscess formation in addition to partial intestinal obstruction are major indications for surgical intervention. The last two cases presented with perforation the differentials being appendicitis and pelvic sepsis. In this environment where most cases of `appendicitis' are handled by general practitioners it is likely that some other pathologies are being missed especially when combined with our poor referral systems. The first case presented with features of malignancy. One must bear in mind granulomatous lesions like Crohn's, lymphogranuloma, tuberculosis and schistosomiasis in the differential diagnosis of bowel outlet obstruction and biopsy must be performed before extirpative surgery. Anal lesions

are believed to herald the onset [2] the typical lesions being fissures, which are shallow and broad, and fistulae. Diagnosis of Crohn's disease is based on clinical features with histological confirmation. The classical histological feature is the non-caseating granuloma, which is seen in 60% of cases and the transmural nature with skips lesions. Detailed search for tuberculous granuloma should be undertaken though Francis[11] notes that abdominal tuberculosis in Nigerians usually presents with peritonitis and ascites rather than obstruction and perforation. Ancillary evidence of pulmonary tuberculosis has been shown by Palmer et al [12] not to be important. Indeed the cases reported had minimal lymph node involvement and on section they only showed reactive hyperplasia. In neither of the patients was Entameoba histolytica found on subsequent stool examination though the use of metronidazole in the last 2 cases could account for this. Also facilities were not available for investigation of yersinia.

The surgical treatment of Crohn's disease is unsatisfactory. This is because of the relentless nature of the disease. Various workers [10,12] have suggested conservative resection since the patients usually need further surgery. A more controversial aspect is what to do to the appendix during exploration for appendicitis and Crohn's disease is discovered. A group of surgeons [10] believe that if the caecum is grossly free of disease the appendix can safely be removed while the presence of caecal involvement indicates a high risk of fistulisation.

The need for proper patient education as to the chronicity of the ailment must be borne in mind in view of the long-term nature of the disease especially since in our patients losses to follow-up are the rule rather than the exception. Crohn's disease though rare in the tropics should be borne in mind when patients present with recurrent right lower quadrant abdominal pain, unexplained fever, weight loss and tender mass especially when the appendix has been previously removed. Efforts to educate general practitioners who perform surgery that all right lower abdominal pains are not due to appendicitis should be made. Patients with rectal lesions should be properly evaluated before extirpative surgery.

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