ILEO-VESICAL FISTULA

A CASE REPORT

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The incidence of vesico-intestinal fistula is covered by an extensive literature, and it is of interest how comparatively rarely the ileum is involved.

In Kellogg's report on 592 cases[1] the percentage organ involvement is given as follows: Sigmoid 63%, rectum 16%, remainder of colon 13%, appendix 4%, and ileum 4%. Other notable contributions have been made by Higgins (382 cases),[2] Lockhart-Mummery,[3] and Bors and Kudish.[4]

The causes of ileo-vesical fistula have been listed as: Inflammatory, including tuberculosis, Crohn's disease, penetration of ingested foreign bodies, and neoplastic.

The following case seems to us worth reporting because of its unusual presentation and aetiology.

CASE REPORT

In October 1960 a White woman, aged 40 and weighing 165 lb., complained of colicky lower abdominal pains, dysuria, frequency of micturition, and nausea, and stated that she had passed blood in her urine. Laboratory studies on a catheter specimen of urine revealed pus, a few blood cells, no albumin or sugar, and no growth of organisms on culture.

On clinical examination she was pale, but not particularly ill-looking, tender over the lower abdomen, without guarding or rigidity, and apyrexial. There was no terminal haematuria. Rectal examination and sigmoidoscopy disclosed nothing abnormal, and vaginal examination was negative except for the presence of a hard tender lump on the right side, adjacent to the lateral fornix, and not adherent to the uterus.

In 1950 she had had a pelvic laparotomy, and a tumour was excised from the fundus of the bladder. This was reported as a 'non-specific granuloma', and she was given a three-weeks' course of radiotherapy following the operation. The tender lump felt on examination was thus thought to be due to adhesions and fibrosis following these procedures.

On cystoscopy and retrograde pyelography we failed to note any departure from normal in the appearance of the bladder or kidneys, and urine drained *via* the ureteral catheters proved sterile. The intravenous pyelogram showed normal renal function.

Since her symptoms, with the exception of the haematuria, persisted, she was sent to Cape Town for specialist urological investigation in December 1960. The urologist reported negative findings, but cultures of the urine grew organisms sensitive to chloramphenicol and furadantin. After these antibiotics had been given her symptoms resolved and for two months she felt well.

In February 1961 there was a recurrence of dysuria with a frank haematuria which again responded to treatment with the same antibiotics.

In April 1961 she complained of a painless diarrhoea with 12 - 16 watery stools in 24 hours. There was no vomiting or nausea and appetite was fair. The diarrhoea resisted all treatment. There were no urinary symptoms and urinary output appeared normal. Radiological investigations, including a barium meal and enema, were negative. She was admitted to hospital and exhaustively investigated, but no pathological basis for the diarrhoea was revealed. Her weight was now 120 lb. Laboratory studies of the urine were negative and at no time was there any evidence of pneumaturia or faecaluria. She then placed herself in the hands of an unorthodox practitioner and embarked on a long course of diet and assorted herbs.

In May 1962 she returned to one of us. She was readmitted to hospital and again subjected to close observation and investigation. Her appetite was fair and her weight was still 120 lb. Blood, stool, and urine studies, and barium enema and meal examinations gave no clues to her pathology. She was averaging 14 watery stools daily and had become exhausted and incontinent. For the first time, however, a significant diminution of the urinary output became evident, and suspicion was aroused in our minds of a vesico-intestinal fistula.

Six ounces of solution of methylene blue were introduced into the bladder and were passed per rectum 5 hours later, indicating the presence of an ileo-vesical fistula.

Operation

Laparotomy was undertaken by one of us (H.F.L.) through a right paramedian incision, and the fistula between the bladder and ileum, remarkably adhesion-free, was easily found. The bladder was excessively thick-walled and had a capacity of some 30 ml. The fistula was divided and the ileum closed. A loop of ileum was isolated and put on as a patch over the opened bladder fundus. The wound was closed in layers and the bladder was drained by an indwelling catheter and continuous suction maintained by Wangensteen's apparatus. On the seventh day there was a little area of breakdown, so a large Foley's catheter was inserted suprapubically and both catheters were drained by continuous suction. The bladder was irrigated daily and 10 days later the suprapubic catheter was removed. The wound healed quickly.

The bladder now held 5 ounces and the patient had full control. Now, 3 months later, she is able to hold 6 ounces, is completely continent and still has some nocturnal frequency. She passes 1 or 2 formed motions daily.

DISCUSSION

It must be assumed that X-ray tissue necrosis occurred at the site of adherence of a loop of ileum to the bladder wound, following the operation in 1950, with subsequent gradual development of the fistula over a 10-year period.

The absence of faecaluria might be explained by the tendency for the contents of a spacious low-pressure system to be discouraged by physical laws from passing into a small higher-pressure system. There was certainly no evidence of a valvular arrangement to account for this.

We cannot explain the absence of pneumaturia except that its incidence is uncommon in ileo-vesical fistulae as compared with vesico-colic fistulae.

REFERENCES

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