ENTEROCELE

by

K. K. Ghosal, M.B., F.R.F.P.S. (Glas), D.R.C.O.G. (Lond.)

Enterocele or posterior vaginal wall hernia or hernia of the cul-de-sac of Douglas is a neglected, though not very infrequent, condition. The history of the discovery of this condition dates back to the year 1804, when Sir Astley Cooper illustrated a case of enterocele in his work on hernia. Denon Villiers published his work on the fascia of the rectogenital region in 1836. Cuneo and Veau published their work in 1899 on the posterior cul-de-sac; they suggested, and proved, that the septum between rectum and vagina was composed of fused dorsal and ventral pelvic peritoneum. New light was thrown on the condition when Kirk (1947) concluded that at first the urorectal septum is composed of solid mesoderm which later becomes excavated by an extension into it of coelomic peritoneal cavity, which is present at birth, down to the perineal body; but that, later, it is obliterated by fusion of the peritoneal walls of the sac. This was corroborated by Uhlenhuth et al (1948) who also showed that in many instances the peritoneal sac extends down to the perineal body in the foetus. They stated that there is a gradual fusion of the dorsoventral peritoneal walls of the pouch as the foetus nears term and this fusion begins at the caudal extremity of the pouch. They showed that this process varies in different individuals with resulting variation of the depth of the sac.

Enterocele may be: (a) Congenital — with a long narrow sac arising just behind the cervix between the utero-sacral ligaments and lying on top of the rectum behind the posterior vaginal wall in the recto-vaginal septum. (b) Acquired — a bulge on the anterior portion of the pouch of Douglas into the recto-vaginal septum and occurring after child-birth, total or sub-total hysterectomy or ventrifixation of uterus. The sac is shorter, more rounded and considerably larger.

Reid says, "Apart from the possibility of a congenitally elongated sac, it would appear that pulsion enterocele may result from increased intra-abdominal tension associated with adiposity, large tumours or slim asthenic patients with an elongated mesentery causing an abnormal stress to be exerted by the intestines in the cul-de-sac, a factor of especial importance after ventrifixation of the uterus." He also mentions about another variety, namely, the traction enterocele which may form as a result of uterine or vaginal prolapse which involves traction on the peritoneal pouch.

A congenitally deep cul-de-sac and faulty development of the pelvic

Department of Midwifery, Nilratan Sircar Medical College and Hospital, Calcutta.

fascia is thought by many to be the cause of uterine prolapse, particularly in virgins (Jones, 1916, Clark, 1921).

Reid classifies enterocele into two clinical types:

(a) Enterocele associated with uterovaginal descent.
(b) Enterocele with or without rectocele formation. This includes patients with a previous successful operation for uterovaginal prolapse.

The *operative treatment of enterocele* can be divided into three accepted methods: (1) By the abdominal route — recommended by Marion, Moschcowitz who advocate obliteration of the cul-de-sac. (2) Vaginal repair — proposed by Gray Ward — this seems to be the ideal method, the abdominal method being reserved for very large and complicated hernias with adhesions, which make vaginal dissection tedious, if not hazardous. (3) Colpocleisis — either total or subtotal, for large hernias where laparotomy is contra-indicated.

In spite of meticulous care in the repair, there may be recurrence. In Phaneuf's series of 48 cases there were 3 recurrences. He says, "The more years which are allowed to elapse, the more will be the recurrence".

The author has come across 5 cases of enterocele, the oldest being 65 years of age and the youngest 18 years. The other patients were 53, 55 and 58 years respectively. The youngest patient was nulliparous. All others were parous.

In Phaneuf's series of 48 cases, the youngest was 36 years, the maximum incidence being between 50 to 55 years — 10 cases.

In Reid's series of 139 cases, the youngest was 38 years while the eldest was 70 years of age, the maximum incidence being in the decade 50 to 60 years — 62 cases. Only 14 were nulliparous.

The youngest case of the author's collection is reported because of several interesting features.

Mrs. A. S., aged 18 years, annual serial No. 1591/61, was admitted to the hospital with the following complaints:-

(a) Something coming down vaginally, 2 years.
(b) White discharge, 2 years.

Menarche — 14 years.

Menstrual history — $\frac{6\text{-}7}{30}$ last period commenced 12 days prior to admission.

Married for 3 years. Nulliparous.

On examination — anaemia +, pulse 80 p.m., B.P. 110/70 m.m. of mercury.

No abnormality was detected in the heart and lungs. Abdomen soft, no fluid thrill or shifting dullness detected.

Vaginal examination—Uterus normal in size, anteverted, mobile. A protrusion from the posterior fornix, reducible but reappearing again on straining. No descent of cervix or bladder. Os closed.

Rectal examination — the bulging could be felt sliding down over the anterior wall of the rectum on straining. Rectal wall not prolapsed into the vagina. Combined palpation of vagina and rectum excluded a rectocele.

Provisional diagnosis — Hernia of pouch of Douglas.

The only relevant point in her past history was that she was treated in the medical wards for ascites for 6 months and was apparently cured and referred to the gynaecological ward for treatment of her present complaints.

Investigations — Blood — Hb 74% (11 grm)
Total leucocytes—8200 per c.mm.
Polymorphs — 60%
Lympho — 35%
Mono — 2%

Eosino—3%

Chest X-ray — no infiltration of the lung fields seen.

E.S.R.—1st hour 5 mm., 2nd hour 11 mm.

Urine & Stool — No abnormality detected.

Patient was operated on 9.11.61.

Anaesthesia — Thiopentone ½ grm. with flaxedil 80 mgm., nitrous oxide and trielene.

The cervix was pulled down (Fig. I)

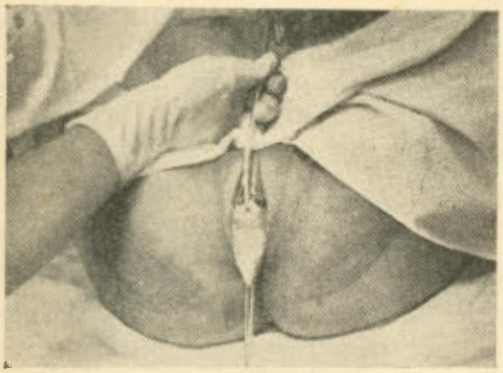

Fig. 1
The enterocele before incision, cervix has been pulled forward.

and held anteriorly. Sac with its margins was defined and pulled down and a longitudinal incision was made in the midline on the vaginal wall, which was reflected on both sides. The sac was then exposed when it was found that it was attached to the perineum by a fibrous band which extended up to the junction of upper two-third and lower one-third of the posterior vaginal wall. The rest of the sac was patent. This was dissected carefully and isolated (Fig. II). The fundus was opened, the coil of the intestine being milked into the abdominal cavity previously. Ascitic fluid was noted to be coming out from the sac. The peritoneal surface and the adjacent coils of intestine were found to be extensively studded with miliary tubercles. The neck of the sac was closed with a purse-string suture after excising the sac, which was sent for histological examination. The uterosacral ligaments were brought together with 3 interrupted catgut sutures, the anterior fascia of the

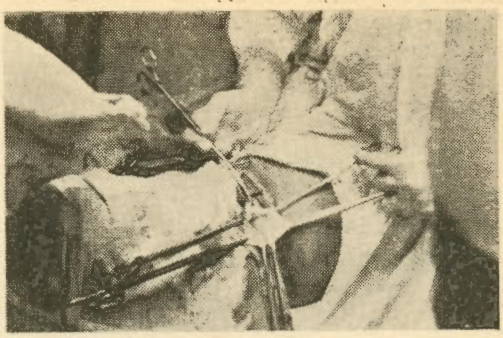

Fig. 2
The reflected vaginal flaps, exposing the peritoneal sac, cervix pulled forward by vulsellum forceps.

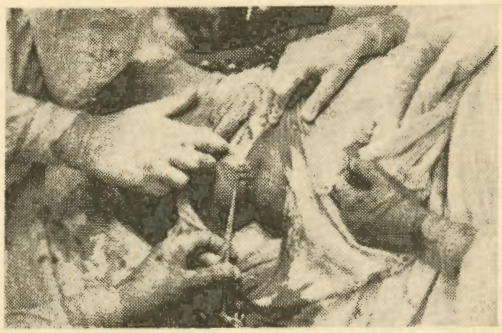

Fig. 3
After excision of the sac and suture of the uterosacral ligaments and excision of redundant vaginal flaps.

rectum being included in the last stitch. Redundant vaginal flap was exised (Fig. III). The anterior fascia of the rectum was plicated all throughout and a perineorrhaphy was done.

The operation was technically rather difficult due to adhesions round the sac.

Histological report of the excised peritoneum confirmed the suspicion of miliary tuberculosis.

Post-operative — Penicillin and streptomycin were used. A total of 10 grms. of streptomycin was given to the patient during her stay of 14 post-operative days in the hospital.

Except a rise of temperature of 100°F. (37°.8 C), the patient remained afebrile. Stitches united well and there was no suggestion of any enterocele when she was

discharged, with advice to continue antitubercular therapy on the 14th post-operative day.

Discussion

The case under review is interesting because:- (1) Age — only 18 years. The only other young case was reported by Pollock in 1917. Her age was 13 years. Prolapse uterus with enterocele was detected when she was 8 years old. A vaginal repair was followed by obliteration of the cul-de-sac abdominally. The youngest patient in Reid's series was 38 years, while in Phaneuf's series of 13 she was 38 years. (2) Nulliparity — enterocele in a nulliparous woman is infrequent. There were only 14 nulliparous cases in Reid's series. Frank (1922) reports a nulliparous enterocele with rectocele. (3) Absence of uterine descent, cystocele or rectocele. This is very infrequent. (4) Presence of peritoneal tuberculosis and ascites for which the patient was treated in the medical ward with all the modern weapons against the disease. Her chest was clear and E.S.R. was normal and there was no clinical evidence of an active lesion. The hernia was present two years before the detection of ascites. This may be a case of "pulsion" enterocele as described by Reid. The ascites may have caused exacerbation of the enterocele previously present due to a congenitally preformed sac. The only other case with ascites was reported by Frank, in 1922, where the ascites was caused by cirrhosis of the liver. The other interesting feature is the presistence of the enterocele in spite of active treatment with the recent chemotherapeutic drugs against tuberculosis. These should have caused closure of the sac by forming adhesions between the two layers of peritoneum.

Summary

(1) A case of enterocele in a patient of 18 years of age without any evidence of uterine prolapse and with tubercular peritonitis and ascites has been reported, (2) repair was done by vaginal route with satisfactory result, (3) available literature has been reviewed.

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