Medical Memorandum

Rupture of the Rectovaginal Septum at Parturition

Isolated rupture, at parturition, of the rectovaginal septum without involvement of the perineum is a very rare obstetrical accident. In this condition the sphincter mechanism remains intact in contrast to the more common injury to the septum which is due to extension into it of a third-degree perineal laceration.

McNulty (1952), in a series of 75 cases of third-degree laceration occurring in a total of 14,080 patients, makes no reference to rupture of the septum; neither does Hofmeister (1952) in his paper on repair of rectovaginal injury occurring at parturition, or Dodek (1954) when writing about similar accidents. Kerr and Moir (1949) mention an instance of rupture of the rectovaginal septum in a patient with a breech presentation at the Glasgow Royal Maternity Hospital. Eight years ago I saw an identical case at the Royal Maternity Hospital, Belfast, when one foot presented through the vagina and the other through the anus. A similar accident is described by Lesh (1952) as occurring with the first of twins. The only record in English that I can find of rupture of the rectovaginal septum occurring in a vertex presentation is that of Melody (1953), although French and German writers have described such incidents. Melody (1953) describes a case occurring in a woman following delivery of her second child by outlet forceps and medial episiotomy. The entire delivery, he states, was easily effected and there was no extension of the episiotomy. On inspection of the posterior vaginal wall, however, a complete rupture of the rectovaginal septum was discovered which extended for a distance of 10 cm. without involvement of the episiotomy or of the anal sphincter.

CASE REPORT

The patient was a primigravida aged 36 who had had a completely normal antenatal period. Labour began at the 38th week. The os became fully dilated after 14 hours. Advance was slow in the second stage. This had been attributed to lack of co-ordination due to the patient having received "omnopon," ¼ gr. (22 mg.), and scopolamine, 1/30 gr. (2 mg.), in the four hours preceding delivery. When the head had been on the perineum for half an hour it was decided to deliver with forceps. During the preliminary vaginal examination a peculiar tight band was felt posteriorly in front of the head, near the introitus, but this caused only a momentary hesitation and it was decided the impression was created by a tight fourchette. After mediolateral episiotomy a live male infant weighing 7 lb. 1 oz. (3.2 kg.) was delivered, using only moderate traction. There was no extension of the episiotomy. It had been intended to repair the incision with subcuticular figure-of-8 catgut sutures, starting posteriorly. It was not until the second of these was being inserted that anything unusual was noted.

An abnormal white appearance in the depths of the wound led to further exploration, which showed that the rectovaginal septum had split for a distance of 4 in. (10 cm.) in the midline posteriorly. The apex of the tear was in the posterior fornix and its distal portion extended into the episiotomy. The white appearance was due to the rectal epithelium. The rectal mucosa and muscularis were closed with a continuous row of intestinal chromic catgut. Another continuous row of the same material approximated the perirectal fascia as a separate layer. In the lower part of the wound the perineal body was reconstituted with interrupted catgut. The vaginal mucosa was then closed with interrupted sutures. This was simple at the apex of the tear, but where the septal split met the episiotomy the vaginal epithelium was badly lacerated and its vitality must have been grossly impaired by the necessity for the introduction of many stitches in different directions. The only comforting factor was the presence of a firm mass of perineal tissue between the patchy, suggillated vaginal epithelium and the rectal mucosa at this level. The perineal skin was closed with three nylon sutures.

Obstipation was obtained by means of a low-residue diet for five days. An attempt to sterilize the bowel was made by giving streptomycin by mouth for the first two days as well as phthalylsulphathiazole, 10 g. daily for the first week. Penicillin and streptomycin were also administered parenterally. The bowels moved on the fifth day, following which all therapy was stopped and a normal diet resumed. The patient remained afebrile in hospital and was discharged, doing well, on the 13th day along with her baby, which then weighed 7 lb. 3 oz. (3.26 kg.) and was being artificially fed.

On the 20th day she was seen again because of pain in her perineum. She had developed a small abscess in the anterior part of the episiotomy wound, which at the time of examination had started to discharge with consequent lessening of pain. The discomfort ceased quickly and the perineum healed rapidly following the discharge of a small piece of catgut.

A post-partum examination was made at the sixth week. No evidence of the tear could be seen. The calibre of both rectum and vagina felt normal. The episiotomy was well healed, with no discomfort. Involution was satisfactory. Bowel action had always been normal.

COMMENT

Melody (1953) attributed the accident in his case to loss of mobility of the vaginal tube upon the rectum, due to scarring and fixation following Whitehead's haemorrhoidectomy. Other cases have been attributed to vaginal stenosis following circumcision and to rupture of a retro-uterine haematoma.

In this instance, however, there has been no previous involvement of the rectovaginal septum in trauma or inflammation of any sort, and no reason can be advocated for the unusual accident. The patient afterwards volunteered the information that because she was "so small inside" she always had some difficulty with coitus. In retrospect it is obvious that what had been thought to be fourchette was really a fold of the tight rectovaginal septum stretched to the point of rupture. If its significance had been realized, delivery probably would have been effected by caesarean section.

The main problems which the case poses are (*a*) the method of repair of the actual injury, and (*b*) the method of delivery in future pregnancies. The second problem is the more easily answered: I feel that all future deliveries should be by caesarean section. With regard to the principles of the repair of such a tear, opinions differ. I cannot see the necessity of sacrificing the sphincter mechanism by converting the wound into a typical third-degree laceration. The advantages are better access at the time of operation and a reduction of sphincteric tone during convalescence. The latter, however, can be readily obtained by other methods. Any anatomical advantage gained by producing a third-degree tear is offset by the increased trauma that has been caused and by the marked increase in bleeding which will occur. Since the introduction of powerful antibiotic and chemotherapeutic agents, the question of colostomy should not, in my opinion, arise—yet such was mentioned by several colleagues in discussion of the case. The similar injuries described by Kerr and Moir (1949) and Melody (1953) all healed satisfactorily without colostomy and without conversion into a third-degree laceration.

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