COLPORRHEXIS

by

N. A. Mohile, M.D., D.G.O.,

D. R. Walmiki, M.D., D.G.O.

and

V. G. Patel, M.D., F.C.P.S.

Injuries to the genital tract during parturition are not uncommon. Rupture of the uterus is the most serious of these injuries. Equally serious but less often encountered is colporrhexis, in which rupture occurs at the vault of the vagina and cervix is torn loose from the vagina, leaving uterus and cervix quite intact.

It was Hugenberger in 1875, who first described this entity and coined the term colporrhexis. Very scant reference to this condition is found in the literature. In 1952 Menon reported 5 cases of colporrhexis and again in 1962 in his report of cases of rupture uterus he made a mention of 20 cases of colporrhexia. Fifteen cases of colporrhexis encountered during the years 1965-70 in the S.S.G. Hospital, Baroda, are reported here.

Colporrhexis is more likely to occur in multiparous patients. After full dilatation of the cervix when the presenting part distends the vagina any obstruction to the further descent of the foetus causes the vaginal wall which is weakened by repeated childbirth, to give way at its weakest portion. Eastman and Hillman (1961) suggest that following energetic efforts on the part of the uterus to overcome some obstacle to the passage of the foetus, the retraction of Bandl's Ring exerts so great a strain on the cervix, that it is torn loose from its vaginal attachments.

Department of Obst. & Gynec., Medical College, Baroda.

Accepted for publication on 10-3-76.

Except for one patient who was a nullipara and one primipara all the patients were multiparous (Table I).

TABLE I
Age and Parity

Age	Parity			
	0	1	2-4	5 & above
Below 20 years	1	–	–	–
21-25 years	–	1	2	–
26-30 years	–	–	4	1
31 & above	–	–	4	2

The presenting part, vertex, was deeply engaged in 10 patients. In 4 because of the escape of the foetus in the peritoneal cavity station of the presenting part at the time of colporrhexis was not possible to determine. In 10 patients the cervix was fully or almost fully dilated. Vaginal examination was not done in 3 patients. In 2 patients the cervix had thickened and contracted following colporrhexis.

The duration of labour in 10 patients varied from 24-72 hours, the remaining, 5 were in labour from 5 to 12 hours. Six patients had cessation of labour pain since 2-9 hours. Though 9 patients had haematuria, none of them showed bladder injury on laparotomy. During operation

bladder was injured in one patient and though repaired she later developed vesicovaginal fistula at the vault (Table II).

TABLE II
Presenting Symptoms

Prolonged labour	10
Cessation of labour pains	6
Haematuria	9
Loss of foetal movements	3
Leaking P/V	3
Bleeding P/V	2
Hand prolapse	2
Prolapse of rectum	1

On examination, 11 patients had signs of frank rupture of uterus showing loss of uterine contour and easily palpated foetal parts. Even then only 2 patients showed slight vaginal bleeding.

Three patients were admitted with signs of impending rupture and as they were taken up for operation rupture took place.

In one patient with 28 weeks' amenorrhoea with hand prolapse and fully dilated cervix an easy internal podalic version was carried out. On exploration uterus was found to be in intact. Because of persistant tachycardia and falling B.P. internal haemorrhage was suspected and on laparotomy anterior colporrhexis was detected.

The factor that precipitated rupture was not known in all the cases as some of these patients were multiparous with previous normal obstetric history and normal presentation and normal pelvis during this pregnancy. However, following factors were thought to be responsible.

TABLE III
Precipitating Factor

Oxytocine injection	4
Hydrocephalus	2
Shoulder presentation	1
Compound presentation	1
Internal podalic version	1
Interference by 'Dai'	1
Unknown	5

Inadvertant use of oxytocics is still an important cause of rupture. In villages oxytocics are sometimes, given to augment uterine contractions without examining the patients. Malpresentation, large foetus, over stimulation of uterus or intrauterine manipulations all can lead to colporrhexis or rupture uterus.

Diagnosis of colporrhexis from rupture uterus is difficult before laparotomy. In none of the 15 patients colporrhexis was diagnosed preoperatively. Abdominal findings in these cases are exactly like those in rupture uterus cases. Munro Kerr mentions that this type of injury can be diagnosed on vaginal examination. But in our experience, when vaginal examination was done, with the presenting part still in the pelvic cavity, as it was in 10 cases, no injury to the vagina was detected. Perhaps the vaginal rent is so well pressed upon by the presenting part that it cannot be distinguished from a fully dilated and effaced cervix. Even when the foetus is expelled completely in the peritoneal cavity, or is delivered vaginally, the capacious postpartum vagina with its walls thrown in folds makes it difficult to detect any injury at the vault, especially when it is not suspected.

On laparotomy colporrhexis can be diagnosed if the edges of the tear are carefully examined. The intact cervix can be traced all around, the raw surface or torn surface is on the anterior surface and not on the upper edge of the rents. The lower vaginal edge is very thin while anterior tip of cervix forming the upper edge is very thick. Diagnosis can be further confirmed by a speculum examination before discharging the patient.

Except for one patient brought in a collapsed condition and the patient who

was in shock after internal podalic version the general condition of the patients was fair compared to average rupture uterus case. B.P. ranged from 90/70 to 130/90 and pulse rate 100-106/p.m. But this does not lessen the seriousness of the condition. Considerable intraperitoneal haemorrhage was present in 8 cases.

The type of injury was anterior colporrhexis in all the cases with a greater tendency to extend on the left side. In one patient uterus was attached only by a small bridge of tissue to the vagina. Broad ligament haematomas were present in 2 patients and uterine vessels were injured in one patient.

As none of the cases was diagnosed preoperatively, the question of repairing the tear vaginally did not arise. Looking at the laparotomy findings none of the tears appeared managable per vaginam. Laparotomy would, therefore, be advisable even after vaginal delivery, if colporrhexis is suspected. Whether a repair of the tear should be done or hysterectomy should be performed depends upon the extent of tear and the general condition of the patient. Total hysterectomy was done in 4 cases as the extent of the tear did not permit repair. In 11 patients repair was done. Tubectomy was done in 7 patients. In this institution repair is preferred to hysterectomy even in cases of frank rupture.

There were two deaths in these 15 patients 13.3%. One patient went in irreversible shock, while the other, though resucitated, succumbed on the operation table. Mortality in cases of rupture uterus is 37.5%. One patient had burst abdomen on the 11th postoperative day but following repair, healing was normal. All the other patients had uneventful convalescence.

Summary

Fifteen cases of colporrhexis are reported. They are difficult to diagnose from rupture uterus preoperatively. Laparotomy and repair of the tear or hysterectomy is the treatment of choice. Maternal mortality was 13.3%. Foetal mortality 100%.

We thank the superintendent S.S.G. Hospital, Baroda, for permission to use hospital records.

References

1. Estman, N. J. and Hellman, L. M. William's operative Obstetrics Ed. 12 New York, 1961, Appleton century and Crofts Inc. p. 976.
2. Menon, M. K. K.: J. Obst. & Gynec. India. 2: 129, 1952.
3. Menon, M. K. K.: J. Obst. & Gynec. Brit. Cwlth. 69: 25, 1962.
4. Moir Chassar: Munro Kerr's operative Obstetrics ed. 6th London 1956. Bailliere, Tindall and Cox, p. 896.