DUHRSSEN'S INCISION

(Report on 3 Cases)

by

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Cervical dystocia is not a very uncommon condition. When cervix is not fully dilated and the patient requires immediate delivery, multiple radial incision of the cervix may effect delivery provided certain condition are fulfilled. Duhrssen described this operation in 1890. (Wassoodew, 1975).

Before undertaking this operation, one must be sure that the presenting part is well below the level of ischial spines, the cervix taken up and there is failure of progress of labour after rupture of the membranes. Delivery is then usually effected by application of forceps or breech extraction as the case may be.

Three cases delivered by Duhrssen's incision in Eden Hospital, Calcutta, during the period from October, 1977 to August, 1978 are reported here.

Case 1

Mrs. R. D., aged 35 years, P4 + O, with no living issue was admitted as an unbooked case on 5-10-77 at 9-55 A.M. with complaint of leaking since 7 A.M. Her LMP was unknown.

On abdominal Examination uterus was 32 weeks size, no contractions, head engaged, FHS-136/min. On vaginal examination os parous, cervix-not taken up, membranes absent Leaking +. She had history of something coming outside the vulva following her third childbirth, 3 years back. She started contractions since 6 P.M. FHS 160/min, regular. Os was 1/4th dilated, taken up but anterior lip thick, non-yielding, and oedematous. Vertex. LOA, lower pole below ischial spines. There was meconium stained liquor. She was prepared for L.U.C.S. and taken to the operating theatre. While she was being prepared, she was having severe bearing down pains. Before operation, her FHS dropped to 100/min, the head was visible at the introitus with the cap of cervix on its top. The os was just half dilated.

At 10-15 P.M. under general anaesthesia incisions were made on cervix at 2 and 5 O'clock positions and the head came out spontaneously. A male baby grossly asphyxiated was born weighing 2300 gms. Unfortunately, the baby could not be revived. The cervix was repaired with interrupted No. 1 catgut mattress stitches. There was no undue haemorrhage. After repair, the cervix remained outside. A vaginal pack was put to repose it and was removed after 24 hours. Postoperative period was uneventful except for mild abdominal distension. She was discharged on 11-10-77. She did not turn up for check up inspite of a letter sent to her.

Case 2

Mrs. R. B., aged 20 years, PO + O, was admitted through emergency as unbooked case on 9-7-78 at 6-45 P.M. with labour pains for 2 days. Her LMP was unknown. On examination general condition was fair, anaemia +, oedema legs nil, Heart and Lungs—N.A.D.. B.P.—110/70 mm. of Hg. On abdominal exami-

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naion uterus was of term size. Moderate uterine contraction, vertex presentation, palpable per abdomen, FHS 144/min. regular. On vaginal examination os was 1/2 dilated, cervix partially taken up. Membranes present, lower pole above ischial spines. She was very restless and was given inj Pethidine 100 mg. At 11.00 P.M. her FHS was 128/min, os was 1/2 dilated, cervix taken up and membranes were absent. Head was visible at the vulva during pains, LOA, caput +. Liquor was thick meconium stained. I.V. dextrose drip was started, Inj sodium bicarbonate 40 C.C. was given intravenously and oxygen inhalation commenced. After one hour, the findings remained same. A decision for Duhrssen's incision was taken for primary cervical dystocia. Under general anaesthesia, 3 incisions were made on cervix at 2, 5 and 7 O'clock positions and the baby was delivered by low forceps. A male living baby, 2650 gms. in weight was born at 12-15 A.M. There was slight extension of the incision at 7 O'clock position with no undue haemorrhage or difficulty in repair. The postoperative period was uneventful. She went home after 8 days in good condition with a healthy baby.

Case 3

Mrs. D. K., aged 25 years PO + O was admitted on 27-8-78 through emergency for swelling of legs for 7 days. Her expected date was 28-8-78. On examination, general condition fair, pulse 80/min, no anaemia, Hb 10 gm% oedema feet +. Heart and lungs—N.A.D., BP 140/100 mm. of urine-albumin absent.

On abdominal examination uterus was 32 weeks' size, no contractions head engaged, FHS 140/min regular. On vaginal examination os was closed, cervix partially taken up, pelvis adequate. She was given inj Largactil—25 mg. and Lasix 20 mg. i.m. Next day her B.P. was 130/90 mm. of Hg. She went into labour on 29-8-78 since 4 P.M. At 6 P.M.—the uterine contractions were moderate, cervix was taken up, os—1/4th dilated. At 9-30 P.M.—FHS 148/min regular, os —1/2 dilated, Vertex at the level of ischial spine, membranes absent, liquor—clear. On 30-8-78 at 6-00 A.M. FHS was absent. Vaginal findings remained same with thick cervix. At 5-00 P.M. the cervix was half dilated with thick tight rim, head visible at the introitus during pains. Inspite of sedation there was no further dilatation by 3 hours. At 8-30 P.M. under general anaesthesia the cervix was incised at 2 and 5 O'clock positions and craniotomy was done. A dysmature baby weighing 2500 gms was delivered. The placenta was small, 300 gms. in weight, with wide scattered areas of infarction. Exploration revealed subseptate uterus. The incisions were repaired. There was no undue haemorrhage. The postoperative period was uneventful and she was discharged after 10 days.

Discussion

Many of the present day obstetricians would consider this operation dangerous and obsolete, because of the risk of uncontrollable haemorrhage from extension of the cervical incisions. But it appears from these 3 cases that it may still be necessary in some cases and is not that hazardous, provided one is aware of its scope and limitations. Indeed, it is a simple and easy operation in selected cases.

The danger is that an inexperienced worker may over-look the existence of pelvic contraction which may be the cause of failure of descent of the head and hence cervical dilatation (Moir, 1956). If the head is well above pelvis floor, caesarean section is preferable (Eastman and Hellman, 1966). Duhrssen's incision can also be used in foetal distress with nearly full dilatation or cord prolapse in identical situation.

The essential prerequisite is that, the vertex should be well down in the pelvis and the cervix stretched, preferably thinned out and more than 5 cm. dilated (Moir, 1956; Eastman and Hellman, 1966). In the present cases the cervix was taken up and half dilated in all the cases. Care was taken to see that outlet contraction was not present and the biparietal diameter was below the level of ischial spines.

Undue length of cervix may be a cause of non-dilatation. Anatomical structure of cervix may be slightly different. All these happen in primipara (Moir, 1956).

The dystocia from rigidity and atresia may end in annular or bucket handle detachment. Sometimes there is displacement of external os in a forward or backward direction causing a sacculation of one or other part of the cervix.

If one can detect cervical dystocia at the right moment, one can avoid all these hazards and in few selected cases avoid caesarean section by this operation.

Incisions on South East and South West of the compass are supposed to have less chance of injuring uterine arteries but Moir (1956) recommends 3 and 9 O'clock positions which are mechanically good and common site of cervical tear. To us, it appears to be risky, as extension of tear may involve the descending cervical artery. O'Sullivan (1939) made several small incisions through the cervical rim. 2, 6, 10 (Eastman and Hellman, 1966) or 4, 6 and 8 O'clock (Donald, 1969) position are also preferred. O'Sullivan (1939) did it under local analgesia but Moir (1956) advocates general anaesthesia. Cervical dystocia in our first case was due to uterine prolapse. Wassoodew (1975) reported a similar case. In a case of cervical dystocia with dying foetus (Case 1) or dead foetus (Case 3) one would like to avoid caesarean section.

There is seldom excessive bleeding from this operation. Care must be taken so that the incisions do not extend beyond cervico-vaginal junction (Moir, 1956). About this operation Moir observed—"So many obstetricians strain at a gnat and swallow a camel. They recoil from cutting even a thinned out cervix but do not hesitate to make deep incisions as a prophylaxis against perineal lacerations".

Summary

Three cases of cervical dystocia treated with Duhrssen's incision are reported. These cases show that even in present day obstetrics there is place for Duhrssen's incision in properly selected cases.

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