CAESAREAN SECTION BY TRANSVERSE ABDOMINAL INCISION

(Report of 200 Cases)

by

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Since the introduction of the Pfannenstiel incision in 1900 and the acceptance of its advantage over the vertical incision by different authorities like Tollefson (1954) and Lees (1958) subsequently, it is being almost universally practiced for Gynaecological surgery, Vohra (1966), Mitra *et al* (1971). The utilisation of a routine transverse abdominal incision for lower segment caesarean section is somewhat a recent venture and it has again proved its supremacy over the vertical incision for the purpose. The advantages are, remarkably low incidence of postoperative complication both, immediate and remote, early ambulation and early discharge from hospital, less chance of venous thrombosis and overall of supreme cosmetic value, since the scar is indiscriminable in almost all cases.

Material and Method

The first author has listed fifty cases and the senior author contributes 150 consecutive cases. Both the authors have tried transverse abdominal incision in cases of repeat sections and post laparotomy cases indiscriminately with a previous vertical or a transverse scar.

One hundred and eighty-five cases were done under general anaesthesia with gas and oxygen and the rest fifteen cases were done with epidural block anaesthesia with xylocaine. Relaxation was quite adequate for exposure with the routine use of relaxant drugs.

TABLE I

Indication for Caesarean Section

1. Cephalopelvic Disproportion	23
2. Prolonged labour—(secondary uterine inertia asymetrical uterine contractions)	35
3. Failed induction for post dated pregnancy	10
4. Foetal distress	30
5. Arrested labour — persistant occipito posterior position	20
6. Breech presentation	10
7. Face presentation	2
8. Brow presentation	2
9. Antepartum haemorrhage	30
10. Repeat section for recurrent causes	15
11. Bad obstetric performances with previous unsuccessful pregnancies	6
12. Severe pre-eclamptic toxaemia	6
13. Diabetes complicating pregnancy	2
8. Brow presentation	4
15 Pregnancy following myomectomy and Gilliams operation	2
16. Pregnancy following Fothergill's operation	1
17. Pregnancy following hysterotomy	2
Total Cases	200

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Received for publication on 23-5-1973.

Technique of the Operation

A linear curved incision 4"-6" with concavity upwards was made 2" above the upper border of the symphysis pubis. The incision was carried down the subcutaneous fatty tissue upto the anterior rectus sheath. The cutaneous vessels were secured individually. The anterior rectus sheath was cut in the same direction securing the bleeding vessels piercing the underlying muscles. The upper and lower flaps were lifted and released by small snips of scissors and gentle gauze pushing. The upper flaps were freed more, so that the diamond-shaped space would allow the smooth extraction of the head. The rectus muscle on either side was retracted taking particular care not to injure the underlying inferior epigastric vessels or its tributaries. The peritoneum was lifted and cut in the transverse axis.

Tendelenberg position was given and the intestines were packed using one single long tetra. A Doyen's retractor put the bladder out of the field of operation. The lower segment was right under the view through the low down transverse abdominal incision. A linear transverse incision was made on the lower segment and the presenting part was delivered in the usual fashion. The senior author used a blade of a pair of Wrigleys outlet forceps as a vectice for the easy extraction of the head. Well engaged head was extracted easily. For deeply engaged head when the low down transverse incision failed to deliver the head, Patwardhan's technique was adopted to deliver the baby. The floating head had to be fixed in axis with the uterine rent and pressure from above helped to deliver the head through the transverse incision. Rarely, internal podalic version for transverse lie of the foetus was performed successfully through the transverse abdominal incision. After the delivery of the placenta the uterine wound was repaired in layers in the usual manner. The parietal peritoneum was closed in transverse axis. The recti muscles were brought together by interrupted catgut ligatures, the uppermost suture was passed through the under surface of the rectus sheath for its anchoring effect and thus having an additional security against herniation. The rectus sheath was approximated by continuous interlocking sutures. In case of fatty subjects a cigarette drain was maintained by placing four thick nylons tied at the ends, extending throughout the length of the wound over the rectus sheath. The fatty tissue was apposed by few interruptoed fine catgut stitches and finally the skin wound was closed by Mitchels clips or continuous vertical mattress sutures with fine black silk.

Postoperative Care

The patients were encouraged breathing exercises on coming around. Patients were made to sit up in 24 hours post-

TABLE II

Postoperative Complications

	No. of cases	Percentage
1. Mild abdominal distension with respiratory distress	6	3%
2. Wound infection—stitch abscess needing drainage from the lateral ends and local dressing	8	4%
3. Disruption of wound necessitating secondary sutures after local dressing	4	2%
4. Postoperative bladder irritation with chronic retention of urine	4	2%
5. Burst abdomen	Nil	Nil
6. Venous thrombosis	Nil	Nil
7. Incisional hernia	Nil	Nil

operative and were out of bed in 48 hours. The cigarette drain was removed after 48 hours. The clips were removed or the stitches were taken off on the 5th day and the patients were usually discharged on the 7th postoperative day.

Comments and Discussion

Apart from more time required to open the abdomen by transverse incision, the rest of the procedure took the same time as in vertical incision. The closure was easy and quick.

Early ambulation ruled out the postoperative complications like abdominal distension and venous thrombosis. The upper abdominal viscera being segregated all along the procedure and the minimal handling of the small intestines probably helped minimising postoperative intestinal distension. The breathing exercises encouraged from the first day made the patients more comfortable. The transverse wound did not hamper complete movement of the diaphragm. The contraction and relaxation of the three flat muscles of the anterior abdominal wall was maintained unabated making respiration, coughing, vomiting, and micturition less strenuous. Lees (1958) recommends the incision particularly for obese subjects but meticulous care should be taken for complete haemostasis in the fatty layer and to occlude any possible dead space. Small haematomas formed invite infection and result in stitch abscess. The bleeding from every layer can be anticipated and is never serious. In this series the rectus muscles were never cut, but if cut for better exposure the union is always very good forming an additional linea transversalis. This has been stressed by Roseenblatt (1945). The low incidence of postoperative complications have long been highlighted by Rees and Coller (1943), Singleton and Blocker (1939) and Thompson *et al*, (1949).

Minimal adhesions encountered during exposure in case of repeat caesarean section or following previous abdominal surgery by transverse incision was a remarkable observation in this series. This was also supported by observers like Thompson *et al*, (1949).

The patients undergoing caesarean section by transverse abdominal incision were found psychologically better off than patients with vertical incision.

Conclusion

1. Two hundred cases of lower segment caesarean section are reported by transverse abdominal incision with its merits and demerits.
2. The exposure and approach to the lower segment was easy and in repeat section adhesions encountered were minimal.
3. Less painful scar due to its disposition, less discomfort and difficulty experienced by the patients for taking deep breath, coughing and vomiting.
4. Immediate postoperative distension, and respiratory distress were minimal in the series with no case of venous thrombosis.
5. Complete haemostasis in all layers and avoidance of tissue dead spaces during closure needed meticulous care to avoid wound haematoma and infection.
6. Transverse abdominal approach was avoided in case of acute emergencies like cord prolapse, suspected uterine rupture, previous classical section cases, or previous hysterotomy.

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