AN INVISIBLE INCISION FOR POSTPARTUM TUBAL LIGATION

by

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The popularity of the operation of tubal ligation has increased dramatically in the last decade. According to the Minister of State for Health, Family Planning and Urban Development, Government of India, up to the middle of 1968 about 4.2 million persons had been sterilised (Chandrashekhar, 1969.). The increasing popularity of tubal ligation springs from its simplicity, its freedom from complications, and above all its reliability as a method of birth control in an age when family limitation is becoming increasingly important. According to Havemann (1967) the number of likely pregnancies among 100 women using this method is 0.003. Performed with ease during the puerperium, this operation brings improved health and economic freedom to many in particular, to the grand multipara. However, sometimes the obstetrician has to face the question of the postoperative scar, and to some women the abdominal scar seemed a constant reminder of their sterility.

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We were concerned about the same and efforts were made to reduce the size of the incision, by placing it in a transverse position above the symphysis at the linea semicircularis, so that it becomes small as it retracts and fades. But despite all our attempts the scar was still visible. In the meanwhile about a year ago one of us (Ramesh) came across a published report about 'A Disappearing incision for postpartum tubal ligation' by Mark and Webb (1968). After slight modifications we started the same and till now 80 women have been successfully sterilised by this method. As the umbilicus is flattened during the postpartum period, a semilunar incision if placed within its confines will become invisible when the abdominal wall returns to normal and the umbilicus assumes its normal depth, thus causing the scar to retract into the umbilicus.

Material and Method

Women admitted to the State Zenana Hospital, Jaipur, for confinment and postpartum sterilisation were screened for this method of tubal ligation, and 80 were operated upon successfully.

Selection of Patients

The most important factor in this technique is the selection of a proper

patient. Women with flattened out navels are the most suitable. Obese women with deep navels and women suffering from chronic cough or smokers were discarded.

Technique

Forty-eight hours before the operation the umbilicus was cleaned with soap, warm water and Cetavelon. The procedure was repeated 24 hours before the operation with Cetavelon only. On the table the umbilicus was again cleaned with Cetavelon and then painted with Povidone-Iodine (Betadine).

As described by Mark and Webb (1968), the abdominal wall was stretched out at 4 points around the navel by the assistant (Fig. 1a), or it was made taut by picking up the centre of the umbilicus by Allis' forceps; next a semicircular incision was made from three to nine o'clock position within the retractable area of the skin. The incision was carried down through the thin subcutaneous tissue, taking care to avoid the fascia. Subcutaneous tissue was separated in the midline, caudal and laterally also, to expose a triangular area. Next a transverse incision was made in the exposed fascia (Fig. 1b) to avoid the entrance through the point of fusion of fascia at the centre of the umbilicus, and to give a transverse double —breasted closure, if necessary, to avoid hernia, as is done in the Mayo operation (Te Linde, 1953.). Here, we deviated from Mark's & Webb's technique, who preferred a longitudinal incision. Using an Allis' forceps, the incised edges of the fascia were retracted to expose the peritoneum (Fig. 1c) which was incised vertically. A narrow right angled retractor was inserted to pull the abdominal wall over the adnexal area of the uterus. It must be noted here that the wound was pressed down against the uterus and was not elevated to avoid the bowels from obscuring the field; a slight Trendelenburg position was also given for the same reason. In some cases who were operated upon on the 4th or 5th postpartum day, a need to elevate the uterus was felt and the same was achieved by the abdominal wall elevation by the assistant. The tubes were visualised and brought into the field by Babcock clamps successively, and traced up to the fimbrial end. Now, the sterilisation procedure of the operator's choice was carried out.

The authors have tried the different techniques without any difficulty whatsoever. However, Irving's and cornual resection were not preferred.

The peritoneum was closed with No. '0' or '1' chronic catgut. Using nonabsorbable linen sutures, the fascia was united, and in some cases double-breasted closure was done. The subcutaneous tissue was reapproximated in the umbilical region thus allowing the future depth of the umbilicus; next the skin was closed as usual by three to four interupted linen sutures. Plain dry dressing covered with elastoplast was used for the first 48 hours.

Discussions

A relatively new method of postpartum tubal-ligation as first described by Mark and Webb (1968) was tried successfully on 80 patients. The authors were not able to find any other report in the literature about this procedure. This operation is best suited immediately after delivery, as

slight difficulty may be felt due to involution of the uterus if the operation is performed at a later stage. However, an assistant can elevate the fundus up into the field by pressing the uterus upwards by abdominal manipulation. The procedure is not suitable at all for the obese women with deep navel and is most suitable for patients having a thin layer of subcutaneous fat and a flattened out navel.

The main drawbacks of the procedure can be infection the umbilicus being considered an area that is difficult to sterilise, and the possibility of a post operative hernia which can be overcome, as suggested by McVay (1954), by careful closure of the peritoneum with inclusion of the transversalis fascia, and by following the Mayo technique used for hernia repair. Another drawback of the procedure is the lack of a suitable exposure for the exploration of the abdominal cavity. In all the 80 cases operated upon by the authors there has been no instance of wound infection or hernia.

The main advantages of this procedure are the cosmetic appearance of the post-operative site and no risk of haematoma formation. In all the 80 cases no antibiotics were used pre- or postoperatively.

Summary

Eighty cases of tubal ligation by technique of Mark and Webb (1968) are discussed, the main advantage of the technique being its cosmetic appeal to the modern women due to the invisibility of the incision scar.

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See Figs. on Art Paper II