

Post Sterilization Tuboplasty: Boon or Bain !

Mukti S. Harne*, Sumedha Harne**, Urmila Gavali***

Abstract

India is developing country, yet the development is less in the medical sector. Though the awareness of tubal ligation is vividly present in the rural set up, pressure on females are increasing due to preference of male child in the society. Some unfortunate circumstances, may it be pressure from the family members or unfortunate death of the existing children or poor economic status of the family to afford the In vitro fertilization for the next pregnancy, leading to compulsion on women to undergo tubal reversal. Hence, this case was brought to notice, while emphasis was laid on the surgical management of a case that we managed.

Keywords: Post Sterilisation, Tuboplasty; Microsurgery.

Introduction

India is developing country, yet the development is less in the medical sector. Though the awareness of tubal ligation is vividly present in the rural set up, pressure on females are increasing due to preference of male child in the society. Some unfortunate circumstances, may it be pressure from the family members or unfortunate death of the existing children or poor economic status of the family to afford the In vitro

fertilization for the next pregnancy, leading to compulsion on women to undergo tubal reversal. The incidence of a successful pregnancy after tubal ligation is 40%. There are many predisposing factors for the success of the pregnancy like the tubal length after surgery should be >4 cm, absence of hydrosalpingnx and previous birth within 5 years [1].

We, at our institution encountered, an unfortunate case of a couple, with history of secondary infertility and belonging to the muslim community, who were anxious to conceive since 3 years and weren't investigated previously. This 24 years, Shabana Shaikh, P1D1, housewife by occupation and resident of Ahmednagar, came with her husband in the gynaec opd. Detailed history of the couple was taken .

Her menstrual history was regular, monthly interval, soaking 1-2 pads per day, with no clots passage or dysmenorrhoea with her last menstrual period was on 21/11/2015. Her obstetric history: Married since 4 years, P1/D1-3 days old, male child , died of low birth weight . Born of spontaneous conception and delivered by Lower segment caesarean section done for h/o fall at 81/2 months of pregnancy in some private hospital in the nearby area. No documentation of this surgery present. Her personal history had no contributing factor. NO history of contraception use was given by the patient. Her husband Shop worker by occupation with no travelling schedules. He used to take alcohol occasionally , one or two times a week. No smoking addictions. No h/o any hospitalization or any surgery. No h/o drug intake. He had a son from his second marriage.

On further history of their act of coitus it was 3-4 times a week, with no dyspareunia ,

*Senior Resident,
***Associate Professor,
PDVVPF's Medical College,
Ahmednagar, Maharashtra.

**Senior Consultant
Jaipur Golden Hospital,
New Delhi.

Mukti Suresh Harne
89, Raja Enclave,
Pitampura,
New Delhi - 110034.
India.
E-mail:
dr Mukti Harne@gmail.com

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minimal spillage of semen present post coitus. No use of any barrier contraception or lubricant used.

ON general examination of the patient : her Gait was normal, Average built, Conscious, cooperative, well oriented to time, place and person, Afebrile, Height - 154 cm, Weight -50 Kg, BMI- 21.7 kg/m², 84/ min pulse, BP- 110/70 mmHg in right arm supine position, Pallor - present, Cyanosis, icterus, clubbing - absent, no oedema. Thyroid examination was within normal limit and no breast abnormality was seen. Per abdomen examination: *inspection*: scaphoid abdomen, e/o scar mark present (coinciding with h/o LSCS), Around 5-6 cm in length. No other scar mark seen. *Palpation*: No hernial sites palpable, No organomegaly. *Percussion* : resonant note heard, no ascitis. *Auscultation*: bowel sounds present in all four quadrant.

Per Speculum

Vagina normal, Cervix normal, pin point, no e/o any discharge or erosion. Pap taken.

Bimanual Examination

Uterus AVAF. Normal size. Cervical motion tenderness absent, B/I fornices free non tender. On investigating her: Routine investigations: Hb- 11.3 g %, WBC -6,700 cu/mm, Blood group and Rh type- O Rh positive, Urine routine- Normal, BSL- 88 mg / dl, VDRL, HBsAg, HIV- non reactive.

Ultrasonography (Abdomen & Pelvis)

Liver- normal (14.5 cm), pancreas, spleen, Right (92*42 mm) & Left Kidney (96*46 mm) normal, urinary bladder- normal, well distended. No calculi, Uterus- normal size and morphology. RO & LO - normal, Impression - No abnormality detected.

Husband's Semen Analysis: Normal

Hysterosalpingography

Non opacification of both the fallopian tubes is seen, suggestive of bilateral cornual end block. Evidence of silastic bands are seen bilaterally in the pelvis (Fig 1).

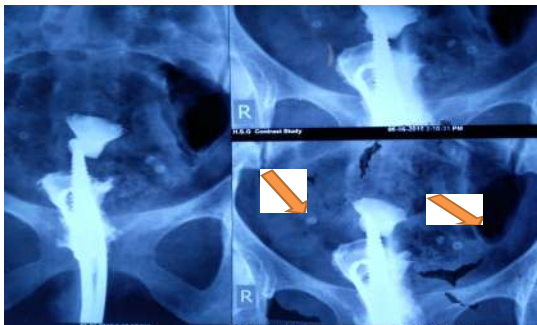


Fig. 1:

Patient was Prepared for Operative in View of Tubal Reversal

Spinal anaesthesia given, Painting drapping done, 5-6 cm incision taken, just above the previous scar. Abdomen opened in layers. E/o pulled up bladder. Uterus held with shirodkar's isthmus holding forceps. On the right side, methylene dye in normal saline pushed through the tube to see the side of block. Evidence of tubal blockage by single fallop ring on the right side (Fig 2). The occluded segment of the tube was resected till there was complete excision of pathological tissue. dye pushed to see jet of saline through the lumen. Mesosalphingx released by sharp dissection for better anastomosis during suturing. Mobbing was avoided as much as possible. Guide wire negotiated through the tubal ends to see the continuity of the tubes (Fig 3). Normal saline was used for constant irrigation. The two cut ends of tube sutured in two layers. First layer: muscularis layer, taking 4 sutures at 12, 3,6,9 positions in intermittent pattern with vicryl no 6 in intermittent pattern (Fig 4) Second layer: serosa layer, sutures with vicryl no 4. Misosalphingx approximated with vicryl no 4.0 in intermittent pattern. On left side, e/o 2 fallop rings, hence obstruction was present at two sites. Same procedure repeated on left side. Recanalization of both tubes confirmed by pushing dye and seeing for peritoneal spillage. Haemostasis achieved Mob count, instrument count, needle count taken. Abdomen closed in layers.



Fig. 2: Evidence of tubal blockage by single fallop ring on the right side



Fig. 3: Guide wire negotiated through the cut ends of the tube

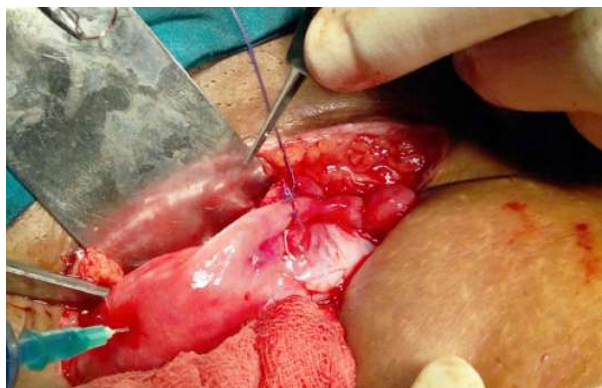


Fig. 4: Second layer, serosa layer taken in intermittent pattern at 12, 9, 6, 3 position with Syringe at fundus with methylene dye to check patency of the tube

Postoperatively, the patient was stable, stitches were removed on day 8th, She was given discharge on day 9th with advice to prevent coitus for 4 months with addition of contraception for 3 months. She was also explained the risk of ectopic pregnancy which are high after such surgeries. Her next scheduled hysterosalpingography was planned after 3 months to check the patency of the tubes.

Discussion

Tuboplasty refers to a number of surgical operations that attempt to restore patency and functioning of the Fallopian tube(s) so that a pregnancy could be achieved. As tubal infertility is a common cause of infertility, tuboplasties were commonly performed prior to the development of effective in vitro fertilization (IVF) [2].

- There are different methods of tuboplasty in literature like Tubal reanastomosis, involves resection of occluded tubal tissue and joining the healthy segments.
- *Fimbrioplasty*, separating agglutinated fimbriae.
- *Salpingostomy*, creating a new distal opening for

the tube.

- *Salpingolysis*, removing adhesions from around the tube.
- *Cornual Implantation*, resecting of an occluded transmural segment of the tube and connecting the distal patent segment of the tube to the uterus so that it links up with the endometrial cavity [1,2,3].

Data is presented regarding 57 women who underwent reversal of sterilization procedure. In the majority (90%), the reason for request for reversal of procedure was loss of male child or more than one child [4]. The fallopian tube is a very complex structure. It not only functions as a conduit for the egg and the sperm to meet, but also provides nourishment for these germ cells during their journey. Often, a damaged portion of the tube can be removed and the healthy ends sewn back together [5]. If the end of the tube is closed, it can be reopened and tied back in place. Each of these types of tuboplasty or repair has a different success rate. Success rates greatly depend on the age of the woman, the amount of the remaining tube and the technology used [6].

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