

FLUOROSCOPIC TUBAL RECANALIZATION (FTR) - AN EASY TECHNIQUE FOR PROXIMAL TUBAL OCCLUSION

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SUMMARY

Repair of proximal tubal occlusion makes up approximately 20% of reconstructive operations on fallopian tubes. Detailed histologic examination of obstructed segment of the tube, frequently failed to confirm luminal occlusion. These findings led us to consider a simple technique of recanalizing cornua under fluoroscopic guidance to restore proximal tubal patency without a microsurgery on the tube. In this prospective study, conducted at Manipal Assisted Reproduction centre (MARC), 25 women having isolated cornual block, with no other tubal pathology were taken up for FTR. FTR was successful in 19/25 (76%) and pregnancy rate was 4/19 (21%) over a six months follow up.

INTRODUCTION

Proximal obstruction of fallopian tubes occurs in approximately 15% of patients diagnosed as having a tubal factor (Winfield et al 1982). Repair of proximal tubal occlusion makes up approximately 20% of reconstructive operations on fallopian tubes

(Mnsich et al 1983). Detailed histologic examination of obstructed segment of the tube, frequently failed to confirm luminal occlusion. In many cases there was amorphous material apparently forming a cast of the tubal lumen (Patricia et al 1987). These findings led us to consider a simple technique of recanalizing cornua under fluoroscopic guidance to restore proximal tubal patency without a microsurgery on the tube.

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MATERIALS & METHODS

In this prospective study, conducted at Manipal Assisted Reproduction Centre (MARC), 200 infertile women who underwent diagnostic laparoscopy and chromopertubation were first analyzed for tubal factor. Those who had tubal block with no other pathology of the tube, were considered for FTR after preliminary hysterosalpingography (HSG) to localize the block. Women having only cornual block were taken for recanalization with guide wire using BARD cannula & selective salpingography catheter under fluoroscopic guidance.

OBSERVATIONS

Out of 200 women who underwent diagnostic laparoscopy with chromopertubation 140/200(70%) had bilateral patent tubes while 70/200 (30%) had blocked tubes. Among the blocked tubes 20/60 (33.33%) had unilateral block and 40/60 (66.66%) had bilateral block. (Table No. I)

In 60 patients with blocked tubes, 35 patients had associated tubal and peritoneal pathology such as abnormal fimbriae, hydrosalpinx, adhesions and endometriosis, so these patients were excluded and were not taken for FTR procedure.

TABLE I
TUBAL STATUS ON DIAGNOSTIC LAPAROSCOPY
& CHROMOPERTUBATION (n = 200)

Tubal Status	No.	%
Patent	140/200	70
Block	60/200	30
- Unilateral	20/60	33.33
- Bilateral	40/60	66.66

TABLE II
FTR RESULTS (n = 25)

	No.	%
Successful FTR		
- Unilateral	4/7	57.1
- Bilateral	15/18	83.3
Total Successful FTR	19/25	76

TABLE III
PREGNANCY RATES (n = 4)

	No.	%
Total pregnancy	4/19	21
Intrauterine	3/19	15.8
Tubal ectopic	1/19	5.2

After excluding the cases with associated pathology viz abnormal fimbriae, hydrosalpinx, adhesions and endometriosis, finally 25 (18 Bilateral & 7 Unilateral) cases were selected for FTR. (Table No. II)

Fluoroscopic tubal recanalization was successful in 19/25 (76%) women and it was unsuccessful in 6/25 (24%) women. Out of 19 successful FTR patients 4/7 (57.1%) were from unilateral group, while 15/18 (83.3%) were from bilateral group. (Table No. II)

After successful FTR, 4/19 (21%) women conceived over a six months follow up. 3/19 (15.8%) women had intrauterine pregnancy and 1/19 (5.2%) women had tubal ectopic pregnancy which ended as tubal abortion. (Table No. III).

DISCUSSION

Both HSG and diagnostic laparoscopy can give false diagnosis of organic cornual block (Patricia et al 1987). These patients can be spared morbidity and expenses of laparotomy with tubal microsurgery. The method of selective fluoroscopic fallopian tube cannulation, followed by advancement of a small soft guide wire, if necessary, is considered as a treatment for infertility caused by tubal debris and light adhesions.

This procedure will be technically feasible and successful in cases of isolated cornual blocks, with no other organic pathology elsewhere in the tube. The advantage of the procedure is its atraumatic handling and avoidance of a major surgery.

TABLE IV
COMPARISON OF SUCCESS OF FTR & PREGNANCY (in %)

	Thurmond et al (1995)	Capitanio et al (1991)	Konrad et al (1991)	Current study
Successful FTR	72	81.2	84	76
Pregnancy	25	10	35	21

In our study cornual block was successfully recanalized in 19/25 (76%) cases in comparison to 72% (Thurmond et al 1995), 81.2% (Capitano et al 1991) and 84% (Konrad et al 1981). So success of current study is comparable to other world wide studies. (Table No. IV)

On follow up of patients over a period of six months, 4/19 (21%) women conceived spontaneously while it was 25% (Thurmond et al 1995), 10% (Capitano et al 1991) and 35% (Konrad et al 1991). (Table No. IV)

CONCLUSION

Fluoroscopic tubal recanalization (FTR) is an easy, simple and non surgical new technique to open cornual block caused by flimsy adhesions, mucous plugs or amorphous debris. Fluoroscopic tubal recanalization should

be done only in those women who have isolated cornual block without associated tubal or peritoneal pathology which should be excluded by preliminary diagnostic laparoscopy with chromopertubation and hysterosalpingography.

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