

EXPERIENCE WITH VASO-VASOSTOMY : TECHNIQUE AND RESULT

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Introduction

Family planning is a burning problem of society and with increasing number of vasectomies, need for recanalisation is progressively increasing. Successful vaso-vasostomy is not only of importance to needy individual but provides confidence to the society regarding vasectomy, since the patient feels that this is a reversible procedure. Although various techniques have been described for vaso-vasostomy with varying success rate, here we are describing our technique with post operative results assessed by pre and post operative seminogram.

Clinical Material

During last two years fifteen patients underwent recanalisation procedure. Age ranged from 28 to 50 years. Indications for vaso-vasostomy were death of only son in 7, death of all children in 3, and the desire to have more children in 5.

Operative Technique

All cases were done under spinal anaesthesia. A longitudinal incision was made on scrotum, and testis with the cord was delivered. Site of granuloma was palpated and segment of vas deference proximal and distal to granuloma was dissected without interfering its vascular supply. Vas was severed at right angle in healthy area both proximal

and distal to granuloma, which was excised. Patency of distal vas was confirmed by injecting normal saline through No. 23 gauge needle.

With the help of No. 20 gauge hypodermic needle, splint was negotiated first through the proximal vas and needle was taken out. Then splint was negotiated into distal vas as shown in figure 1 and end to end anastomosis was done using 6/0 nylon suture on atraumatic needle without piercing through mucosa by 4 to 5 interrupted sutures. Vas was fixed to the cord by interrupted nylon sutures, proximal and distal to anastomosis to avoid tension. Splint was taken out through scrotal wall.

Post operatively patient was kept on absolute bed rest for a minimum period of 7 days. On 10th post operative day, splint was removed. Patient was called for followup after 2 weeks when seminogram was repeated.

Result

All cases were subjected to pre and post operative seminogram (Table 1).

In 12 patients (80%) seminogram was positive with sperm count ranging from 5-6 sperms/H.P.F. to 40 millions/ml.

Duration between vasectomy and recanalization did not affect the sperm count in all

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the cases except in one. Who underwent recanalization after an interval of 10 years and post operatively had a sperum count of 5-6 sperm/H.P.F. In two patients vasectomy was done very near to convoluted vas and hence anastomosis was difficult and post operatively they remained azoospermic.

Table 1

S. No.	Name	Duration between vasectomy and recanalization (in years)	Pre-operative sperm count in million/ml.	Post-operative sperm count in million/ml.
1	Y.A.	5	Azoospermia	10
2	R.V.	10	do	5-6 sperm/ H.P.F.
3	R.C.R.	8	do	19
4	S.S.T.	4	do	20
5	N.C.G.*	6	do	Azoospermia
6	C.Y.	8	do	10
7	V.N.**	4	do	Azoospermia
8	D.S.	2	do	30
9	R.D.M.	3	do	40
10	A.N.S.**	5	do	Azoospermia
11	N.K.	7	do	8
12	D.S.	10	do	5
13	R.K.	2	do	30
14	G.P.	2½	do	18
15	S.S.	3	do	15

Discussion

There has been increasing interest in restoring the patency in post vasectomised male since classical study by O'Conor in 1948. He reported 14 of his own cases with a successful results. Since then various modification in technique have been done to achieve good results. Various methods in use for reanastomosis are nonmagnified single layer,

ocular loupe magnified single layer, microsurgical single layer and microsurgical double layer anastomosis. Controversy exists regarding use of splint. Antagonists avoid it because of sperm leakage at the site of exit, leading to granuloma formation. We are using in all cases without any side effect.

Testicular biopsy was done in initial 3 cases which came out to be normal so it was omitted. Similar observations have been found by other workers also (Phadke and Phadke, 1967) and now it has been omitted practically. Age of patient and time interval between vasectomy and reanastomosis do not seem to affect the result (Phadke and Phadke, 1967) but vasectomy performed closed to convoluted portion of vas increased the difficulty of anastomosis and made it impossible in some cases. In our series 12/15 patients (80%) had appearance of sperms as compared to other series 83% by Phadke and Phadke (1967), 88.3% by Dorsey (1973) etc.

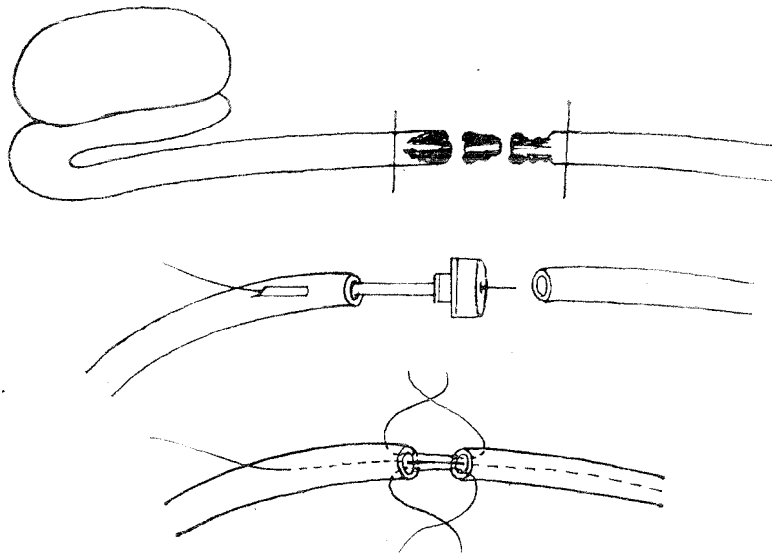
Although surgical technique is of importance, but pregnancy depends on various other factors such as total sperm count and presence of antisperm antibodies etc. We are still following the patients and pregnancy rates in their sponces will be a subject of future communication.

Summary :

Fifteen patients underwent recanalization procedure by single layer non magnified anastomosis with splint. In 12 patients (80%) reappearance of sperm was found with sperm count ranging from 5-6/H.P.F. to 40 million/ml. No side effect was observed due to splint.

*Patient came for revision of vaso-vasostomy due to formation of granuloma post operatively again formed granuloma.

**In these two patients, vasostomy was done very near to convoluted vas, so anastomosis was some what difficult.



(Figure showing Technique of Vaso-Vasostomy)

References

1. Dorsey, J. W. : Surgical correction of post-vasectomy sterility. *J. Urol.*, 110 : 554, 1973.
2. Phadke, G. M. and Phadke, A. G. : Experience in reanastomosis of vas deference. *J. Urol.*, 97 : 888, 1967.
3. O'Connor, U. J. : Anastomosis of vas deference after purposeful division for sterility. *J. Urol.*, 59 : 229, 1948.