

STERILISATION REVERSAL : AN APPROACH IN A SMALL PRIVATE SET UP AT PERIPHERY

INDIRA BHARGAVA

SUMMARY

Sterilisation reversal was performed on 25 women in a small private nursing home in periphery over a period of 4 years. Successful pregnancy rate was 64% excluding one ectopic gestation. Good results are obtained by simple naked-eye method without the use of any magnification but utilizing the micro-surgical principles and proper selection of cases. Availability of SR at periphery with promising results enhances the acceptability of sterilisation with more confidence. In most cases end to end anastomosis with 6/0 prolene over fine nylon splints have been done. Factors which favour the success rate have been critically evaluated.

INTRODUCTION

In last decade a large number of women have been sterilized surgically and specially laparoscopically and it is inevitable that some in changed circumstances wished their fertility restored. For most of the women from middle and lower socio-economic class, it is not feasible to go to the higher institutions and distant places where sterilization reversal

is readily available. They now seek this facility in their near vicinity. This study has been undertaken on 25 such cases operated at a small private nursing home in Saharanpur, a district of western U.P.

In all the cases surgery is done by naked eye, without the microscope, but utilizing the principles of micro-surgery such as gentle operative technique, using fine needles and sutures, delicate instruments, constant irrigation and precise haemostasis with minimal trauma.

The aim of this study is to assess the success of micro-surgical SR rate at peripheral set up and to critically evaluate the factors which favour success rate.

MATERIAL AND METHOD

Sterilisation Reversal was performed on 25 women in this set up from January 1990 to December 1994.

The reasons for seeking sterilization reversal were all children lost in 8 cases (32%), loss of the only son in 12 cases

and lower socio-economic class (84%) only 16% came from upper social class. Table II.

Routine investigations were done in all the cases. Husband's semen analysis, Tests for ovulation, Hysterosalpingography and diagnostic laparoscopy were done only when thought necessary, surgery was performed in the post menstrual phase.

PROCEDURE USED

The abdomen was opened by a small suprapubic incision. The actual fallopian

Table I
REASONS FOR SEEKING STERILIZATION REVERSAL OPERATION

Reasons of SR	No. of Cases	% Age
Death of all children	8	32%
Death of only Son	12	48%
Remarriage	4	16%
Regret	1	4%

Table II
SOCIO ECONOMIC STATUS OF PATIENTS SEEKING SR

Social Class	No. of Cases	% Age
Lower Class	10	40%
Middle Class	11	40%
Upper Class	4	16%

(48%), remarriage in 4 cases (16%) and regret in one case (4%). Table I.

Most of the cases came from middle

tube anastomosis was done over a nylon splint, using 6/0 prolene for 3-4 separate vertical bites of muscle avoiding endosalpinx

and bringing the peritoneal surfaces together exactly. The mesentry of the Fallopian tube was stitched with fine catgut. All work was done gently and meticulously so that minimal trauma was inflicted. A course of broad spectrum antibiotics was given post-operatively for a week. Splints were removed after 10 days through the transcervical route. Single hydrotubation was done at the same time.

After discharge from the hospital all women were encouraged to conceive as soon as possible and to report positively if they missed their periods.

RESULTS

* Follow up of the cases was done for 2 years.

* Results were taken as negative, if no pregnancy occurred within 2 years of the S.R. operation.

* Out of 25 cases, 16 cases (64%) had successful pregnancy excluding one ectopic gestation (4%).

* Success rate of SR with age distribution of cases in this study is shown in Table III. Success rate

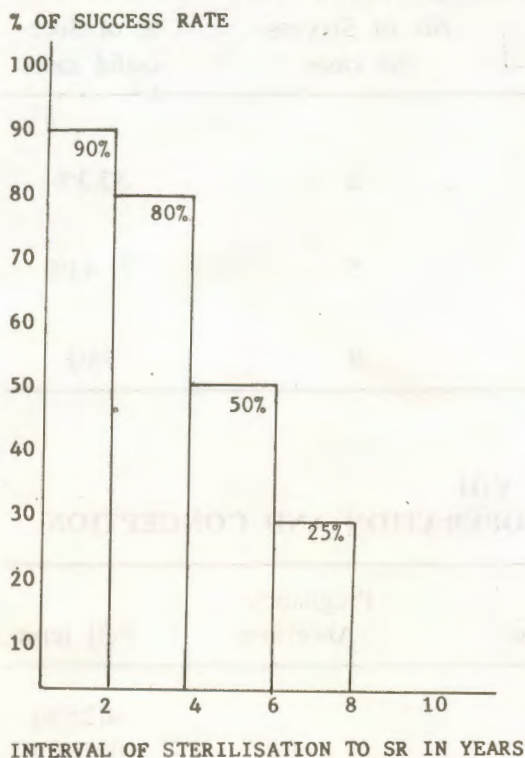
Table III
SUCCESS RATE WITH AGE DISTRIBUTION OF PATIENT

Age Gr.	No. of Pts.	No. of Successful Preg	%Age
20 - 25 Yr	1	1	100%
26 - 30 Yr	16	12	75%
31 - 35 Yr	4	2	50%
36 - 40 Yr	4	1	25%

Table IV
PREGNANCY OUT COME AFTER S.R. AND THE METHOD OF STERILIZATION

Method of Sterilization	No. of Patients	Preg outcome	
		Intrauterine	Tubal
Fallope Ring Lap Sterilization	17	14(82%)	1(4%)
Pomeroy's Minilap Sterilization	8	2(25%)	-

Table VI
PREGNANCY OUTCOME AND
INTERVAL OF STERILIZATION
TO STERILIZATION REVERSAL



of S.R. falls with advancing age.

* Pregnancy outcome after SR and the method of sterilization used is shown in Table IV. Success is more (82%) after fallope ring laparoscopic sterilization as compared to that after Pomeroy's minilap sterilization (25%).

* Most successful, cases are those where anastomosis is done between Isthmic to Isthmic portions of the fallopian tube. Table V.

* Pregnancy out come after S.R. and the interval of sterilization to SR is inversely proportional. As the interval increases success rate decreases. Table VI.

* Time interval between SR operation and conception is shown in Table VIII. In this study most women (62.5%) conceived within 6-12 months of SR operation.

Table V
PREGNANCY OUT COME AND SITE OF ANASTOMOSIS

Site of Anastomosis	No. of cases	Preg out come	
		Intrauterine	Tubal
Isthmic to Isthmic	12 (BIL)	10	-
Ampulary to Ampulary	3	3	-
Isthmic to Ampulary	5	1	-
Cornual to Isthmic	2	1	1
Cuff Salpingostomy	3 (BIL)	1	-

Table VII
APPROXIMATE LENGTH OF FALLOPIN
TUBE AFTER ANASTOMOSIS

Length of fallopin tube after	No. of SR cases	No. of Successful cases	% of Successful cases
Less than 4 cm	6	2	33.3%
Between 4-6 cm	7	5	71.43%
More than 6 cm	12	9	75%

Table VIII
TIME INTERVAL BETWEEN SR OPERATION AND CONCEPTION

Time interval	Ectopic	Pregnancy Abortions	Full term
0 - 6 Months	1	-	4(25%)
6 - 12 Months	-	1	10(62.5%)
12 - 24 Months	-	-	2(12.5%)

DISCUSSION

More and more women are now coming for S.R. since tubal sterilization has been done on many young women of low parity. True reversibility rate is difficult to compare amongst various series reported in literature because of many reasons, the most important being the selection of cases for surgery. This is more or less a selected series as 5 cases were refused for reversal due to one or more unfavourable factors.

The results of this study are comaprable to the results of Mukherjee, S. et al. 1992, from Maulana Azad Medical College and LNJP Hospital, New Delhi, as regards the successful pregnancy rate (theirs 67.9% and ours 64% and success rate of S.R. in Fallope Ring sterilization (theirs 80.9% and ours 82%) and the site of anastomosis with Isthmic to Isthmic (theirs 85% and ours 83%). This is reported by other authors also. The site of anastomosis Isthmic to

Isthmic is most successful (Gomel, V., 1983), success rate after SR falls with advancing age (S. Yadav, 1995).

The results of this series are slightly better than the results of Biswas, et al 1993, from Kar Medical College, Calcutta (success rate 55%), as they have done reversal mostly on Pomeroy's sterilization (61%). Our time interval between SR and pregnancy is comparable as more than 60% of our cases also conceived within 6-12 months.

CONCLUSION

Thus micro-surgery is simple and relatively inexpensive and can be done by any trained gynaecologist at a well equipped place at the periphery.

Proper selection of cases is important at such set ups. The more difficult and complicated cases left for higher centres and guided properly if wished so.

The factors which favour success rate of SR operations evaluated after this study are -

* A good aseptic, gentle and meticulous work is essential.

* Age below 35 years is more favourable for good results.

* Fallopering sterilization cases have more chances of reversal.

* Success is more within Isthmic to Isthmic anastomosis.

* Interval of recanalization to sterilization less than two years is best for good results though success is achieved upto 4-6 years also.

* The conception to SR time is unpredictable but younger age group, presence of ovulation, normal husband semen analysis, longer tubal length a sepsis and absence of previous adhesions all favour early conception.

REFERENCES

1. Biswas, Bhowmick. R; Seal, S. and Ganguly, G. : *J. of Obstet. and Gynec. of Ind.* 43, 980: 1993.
2. Gomel, V. *Microsurgery in female infertility; 1st Ed. Published by little Brown and Co., Boston, P. 147, 1983.*
3. Mukherjee, S. and Vaid N.B., Shanker R., *J of Obstet & Gynec Ind.* 42: 643, 1992.
4. Yadav Shanti J. *of Obstet & Gynec of Ind.* 45, 314, 1995.