

EVALUATION OF "MINICAMP APPROACH" FOR FEMALE STERILISATION IN RURAL AREA: A 15 YEAR STUDY

By

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Introduction

Among various fertility control measures, the female sterilisation continues to occupy an important position. Unfortunately in rural India, these services are still dependent on camp approach. Usually these camps are arranged towards the end of the year on large scale with the intention of completing the given target. Such target oriented, large scale, sporadic camps are usually associated with high complication rate. With the Government's Minimum Need Programme policy, more and more community health centres/upgraded Primary Health Centres are being made available with specialist's services at each centre. Under such favourable conditions small scale, planned, periodic camps can be arranged at centres to fulfill the demands of rural population with minimum morbidity and mortality. The aim of the present study is to highlight the importance of MINICAMP APPROACH for female sterilisation.

Material and Methods

This is the retrospective evaluation of female sterilisations carried out during periodic camps from the year 1971 to 1985 at "Health Unit" of Grant Medical College, Bombay. This health unit along

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with its 9 subcentres is situated at 'Palghar', about 80 km. away from Bombay on Western Railway. The females willing for sterilisation come to the centre with the help of field workers on day prior to the camp. Those who are fit for the surgery as decided by history, complete clinical examination and necessary investigations like Hb, urine testing, B.P. recording etc. are admitted for proper pre-operative preparations. Next day the visiting team including an anaesthetist and a gynaecologist from Grant Medical College attend the camp. The sterilisation operations are carried out under spinal anaesthesia by "Minilaparotomy" and the tubes are occluded by the modified Pomeroy technique. Post operatively patients are observed for about 5-7 days and are discharged after suture removal. Thereafter these patients are followed up regularly by the field workers of the health units during their home visits.

Observation

Total 5263 sterilisations were carried out during period of 15 years from the year 1971 to 1985 at Health Unit, Palghar, by minicamp approach. Maximum 33 sterilisation and minimum 1 sterilisation was carried out at these camps with average number of sterilisation being 10.18.

Out of these, 5104 (96.98%) were

Hindus, 155 (2.95%) Muslims and remaining 4 (0.08%) were belonging to other religions. 4149 (78.83%) women were below 30 years of age with maximum (53.99%) in the age group of 26-30 years. 4981 (94.64%) acceptors had 3 or more living children with the maximum (33.73%) were having 3 children. 4168 (79.19%) sterilisations were carried out during post-partum period upto 6 weeks after delivery and 1095 (20.80%) cases were interval sterilisations.

The minor surgical complications as shown in the Table II were observed only in 410 (7.79%) cases. Pelvic peritonitis was observed in 2 (0.04%) cases which responded to antibiotics. One case (0.02%) developed rectus sheath haematoma requiring incision and drainage of it. 150 (2.85%) cases developed pyrexia in the immediate post-operative period. Wound sepsis was evident in 257 (4.88%) patients. Out of these cases 1.70% had only induration wound, 2.36% had minimum discharge from the wound and only 0.82% had gaping of the wound. Side effects of spinal anaesthesia such as nausea/vomiting, hypotension and giddiness were observed in 210 (3.99%), 86 (1.63%) cases respectively while spinal headache was observed in 684 (13%) women. This can be prevented by carrying out procedures under local anaesthesia with prior sedation. In the present study, the centre of study is training

TABLE I

Type of sterilisation	Total No. of cases	Percentage
Post-partum sterilisation	4168	79.20
Interval sterilisation	1095	20.80
Total	5263	100.00
Average No. of cases per camp		10.18

centre for interns under rotatory internship programme. Hence the sterilisations are carried out under spinal anaesthesia, for training interns in technique of female sterilisation.

TABLE II
Minor Complications in 5263 Sterilisations

Complications	Total cases	Percentage
(1) Pelvic peritonitis	2	0.04
(2) Rectus sheath hematoma	1	0.02
(3) Pyrexia	150	2.85
(4) Wound sepsis	257	4.88

The major complication in the form of visceral injury was observed in 3 cases (0.06%). These included the superficial injury to intestines in 2 cases and that of bladder in other case. These injuries were detected and repaired immediately during operative procedure. There was no mortality. Only 3 cases conceived after sterilisation giving the failure rate of 0.06%.

TABLE III
Major Complications

Complications	Total cases	Percentage
(1) Operative visceral injury		
(a) Intestinal	2	0.04
(b) Bladder	1	0.02
(2) Mortality	Nil	Nil
(3) Failure	3	0.06

Discussion

The present study is an evaluation of 5263 female sterilisations which were carried out at health unit of Grant Medical College, Bombay, by minicamp approach. These camps proved to be safe

and effective with low complication rate. Minor surgical complications were observed in 7.79% cases and major in 0.06% with overall complication rate of 3.73%. The failure rate was 0.06%. There was no mortality in this study which establishes the importance of proper selection of patients and pre as well as post operative management with follow up.

As far as mortality in camp sterilisation programme is concerned Centre for Disease Control from United States estimates the death rate of 3.6 per 100,000 for all techniques of tubal sterilisation, (1985).

Elton Kessel and Stephen Mumfird (1985) put the fact that the mortality rates of 40 per 100,000 procedures must be expected in campaign approach of sterilisation in rural parts of the developing countries like India.

Table IV shows the comparative study of the complication rates and mortality rates per 1,00,000 women by different authors in camp sterilisations in India. K. Sud and R. Malan in year 1985 analysed the 11692 laparoscopic sterilisations carried out in various camps in Himachal Pradesh during a period of one year. They observed complication rate 9.8% and mortality rate 26/1,00,000 women.

Prof. Malini Karkal (1986) of International Studies of Population Sciences (I.P.S.) in her press report gives death rate of 100 to 120 per 1,00,000 in laparoscopic campaign in India with complications rate 5.3%. Doifode and Sathe (1986) in their study of laparoscopic sterilisations, in rural areas show no mortality with overall complication rate 6.08%. In this campaign the average number of sterilisations per camp was 18. The present study of 5263 minilap sterilisations has shown the overall complication rate 3.73%. Thus the comparison reveals that small camps are associated with low complication rate and no mortality.

Everybody will agree on the point that there should be no mortality as far as possible during sterilisation programme in order to achieve the goal of the programme. The objective of the family welfare programme "Promoting the maternal and child health and thereby family health" is at risk by single death of a nursing mother at the sterilisation operation. A death of a healthy nursing mother during child bearing age means ruining the complete family. This can be prevented by Minicamp approach i.e. organising small, routine, regular camps within the capacity of resources available at the

TABLE IV
Comparative Study

Author and Year	No. of cases	Method	Complication rate Percentage	Mortality rate per 100,000
K. Sud and Malan (1985)	11692	L. Scopy	9.8	26
Malini Karkal (1986)	9066	L. Scopy	5.3	100-120
Doifode and Sathe (1986)	1233	L. Scopy	6.08	Nil
	64	Minilap		
Present study (1986)	5263	Minilap	3.73	Nil

particular centre. With Minicamp approach it is possible to deliver satisfactory pre as well as post-operative care and follow-up of patients which is very essential for the success of the campaign.

The similar observation was concluded by Sholapurkar *et al* (1986) while organising laparoscopic camps at various primary health centres of Sholapur district. They carried out 980 procedures without any complication through small camps with proper selection of patients. They had to reject 82 patients on pre-operative clinical examination.

There should be no compromise as far as selection of patient and pre as well as post-operative management is concerned. The method of sterilisation should be surgeon's personal choice and should not be merely dependent on patient's wish and convenience. Promoting patients for ideal things depends on the way of motivation as it is evident from the fact that there was an era of vaginal sterilisations in India, during which majority of women were opting for vaginal approach and now they are for laparoscopic sterilisations. Thus the acceptance of patient for particular method is the end result of proper counselling.

Conclusion

We consider that "Minicamp - Approach" for female sterilisation pro-

gramme is safe, effective and associated with minimum complications. These type of camps are suitable, mainly in rural health set up where through the network of field workers counselling as well as follow-up can be carried out to the utmost satisfaction. It is therefore concluded that "Minicamp Approach" should be encouraged for female sterilisation in rural India at upgraded primary health centres, community health centres, cottage hospitals etc., to minimise the morbidity and mortality of female sterilisations.

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