



STUDY OF PREVALENCE AND SOCIODEMOGRAPHIC FACTORS AFFECTING POSTPARTUM STERILIZATION AT A TERTIARY CARE CENTRE

| | |
|-----------------------------|---|
| Dr Hena Wasim | 3 rd Year Resident Doctor, Department of Obstetrics and Gynaecology, Smt SCL Municipal General Hospital, Smt. NHLMMC |
| Dr. Samipa J Shah | HOU, Department of Obstetrics and Gynaecology, Smt. SCL Municipal General Hospital, Smt. NHLMMC |
| Dr. Saliha Agasiwala | 3 rd Year Resident Doctor, Department of Obstetrics and Gynaecology, Smt SCL Municipal General Hospital, Smt. NHLMMC |
| Dr. Shailaja Sadhu* | 2 nd Year Resident Doctor, Department of Obstetrics and Gynaecology, Smt. SCL Municipal General Hospital, Smt. NHLMMC. *Corresponding Author |
| Dr. Shivani Mehta | 1 st Year Resident Doctor, Department of Obstetrics and Gynaecology, Smt. SCL Municipal General Hospital, Smt. NHLMMC |

ABSTRACT

Background: Postpartum sterilization is a type of female sterilization (permanent method) performed as a surgical procedure after vaginal delivery or during cesarean section. It is a method of choice for couples who have completed their families. This study was conducted to study trends and various sociodemographic factors affecting postpartum sterilization. **Methods:** A prospective study of 234 cases of postpartum sterilization performed over a period of six months from July 2022 to December 2022. Results: 234 patients opted for sterilization procedures. 190 patients had undergone cesarean tubectomy and 44 patients had undergone tubal ligation following vaginal delivery. Maximum number of patients belonged in 25-29 year age group (40%). 82% of patients belonged to lower socio-economic status and only 6% of patients had all female live issues. Conclusion: Misconceptions regarding the procedure, low awareness and various cultural and religious factors play a major role regarding acceptance of postpartum sterilization.

KEYWORDS : cesarean tubectomy, contraception, postpartum sterilization

INTRODUCTION

Female sterilization is one of the most popular permanent method with fewer side effects and lesser chances of failure. It is a method of choice for couples who have completed their families and is the most practiced method of contraception globally. It has been estimated that the procedure has been performed on 190 million women worldwide.⁽¹⁾

In India over 4.1 million female sterilizations are done annually according to Health Management Information System (HMIS 2013-2014)⁽²⁾. Due to increasing population of our country, the unmet need for contraception is increasing. As per district level household survey III (DLHS III), total unmet need of contraception in our country is as high as 21.3%, out of which 13.4% wants a permanent method⁽³⁾.

Postpartum sterilization is a type of female sterilization performed as a surgical procedure after vaginal delivery or during cesarean section. Unintended pregnancy is a serious problem in developing country like India which is associated with health risk and financial burden to women, her family and society. Thus, it is a convenient, efficient and cost-effective means of preventing future pregnancy.

Most commonly employed method of postpartum sterilization is the Modified Pomeroy method for tying of fallopian tubes via a minilaparotomy.

The present study has been undertaken to analyze how various socio demographic factors like her age, parity, religion, socio-economic status, preference of male gender of child etc., significantly affect the decision-making process of the patient for opting permanent method of sterilization.

MATERIALS AND METHODS

It is a prospective observational study carried out from July 2022 to December 2022 at Department of Obstetrics and Gynaecology of Smt. SCL Municipal General Hospital. Total 234 patients had undergone postpartum sterilization during this time.

Relevant history regarding age, parity, socioeconomic status, religion and number of living children were collected. Data regarding mode of delivery was also collected simultaneously. Modified Pomeroy's technique was used in all the patients of postpartum sterilization.

RESULTS:

Table 1: Distribution of patients according to sterilization method

| Postpartum sterilization | No. of patients | % |
|--|-----------------|-------|
| Sterilization following vaginal delivery | 44 | 18.8% |
| Cesarean tubectomy | 190 | 81.2% |

Out of 3219 deliveries conducted during the study period, 234 underwent sterilization procedure giving a prevalence of 7.27%. 44 patients (18.8%) underwent sterilization following vaginal delivery and 190 patients (81.2%) underwent cesarean tubectomy. This is shown in Table 1.

Table 2: Distribution of patients according to maternal age

| Maternal age (years) | No. of patients | % |
|----------------------|-----------------|-------|
| 20-24 | 42 | 17.9% |
| 25-29 | 94 | 40.2% |
| 30-34 | 70 | 29.9% |
| 35-39 | 26 | 11.1% |
| >=40 | 2 | 0.8% |

Table 2 shows age distribution of patients. Mean age of the study population was 28.83 years. 136 women were of age group 20-29 years accounting for 58.1%. Since most patients in our tertiary care centre come from lower socio-economic class, they get married at an early age between 18-20 years, and their obstetric time gets completed by 30 years.

Table 3: Distribution of patients according to maternal parity

| Maternal parity | No. of patients | % |
|------------------------------|-----------------|-------|
| Primi para | 0 | 0 |
| 2 nd para | 44 | 18.8% |
| 3 rd para | 146 | 62.4% |
| 4 th para | 36 | 15.4% |
| 5 th para or more | 8 | 3.4% |

Out of all the patients opting for sterilization, 146 were of 3rd parity constituting 62.4% of the total sterilization procedures performed. 44

patients were of 2nd parity and 36 patients were of 4th parity. This is shown in Table 3.

Table 4: Distribution of patients according to religion, socio-economic and educational status

| Religion | No. of patients | % |
|-----------------------|-----------------|-------|
| Hindu | 174 | 74.3% |
| Muslim | 60 | 25.6% |
| Other | 0 | 00 |
| Socio-economic status | | |
| Lower | 192 | 82% |
| Middle | 42 | 17.9% |
| Upper | 0 | 00 |
| Educational status | | |
| Illiterate | 52 | 22.2% |
| Primary | 98 | 41.9% |
| Secondary | 69 | 29.5% |
| Higher Secondary | 9 | 3.8% |
| Graduate | 4 | 1.7% |

Hindu women constituted majority to choose permanent methods. Out of 234 patients, 174 were hindu, constituting 74.3% of the study population. 60 out of 234 were muslims constituting 25.6% of total study population. 82% of patients belonged to lower socio-economic class in our study. Uneducated women not having information regarding various family planning options and not understanding pros and cons of all methods, tend to opt for female sterilization suggested by their husbands, in-laws and governments. 52 women out of 234(22.2%) were illiterate and 98 women had completed their primary schooling. This is shown in Table 4.

Total 14 patients had all live female children constituting 6% of the total study population. Gender preference is still quite prevalent in a country like India.

DISCUSSION

The incidence of postpartum sterilization in our study was 7.26%. 81.2% patients underwent cesarean tubectomy and 18.8% patients underwent sterilization following vaginal delivery. Patients undergoing cesarean tubectomy were highly motivated as they were made aware of future risk and morbidity related to multiple cesarean sections. According to study by T Lu et al, repeated LSCS was one of the most common reason of women undergoing tubal ligation⁽⁴⁾.

The mean age of study population was 28.8years. 136 women belonged to age group of 20-29 years constituting 58.1% of the study population. Puwar et al had also reported 28 years as median age in females⁽⁵⁾.

Patients with 3rd parity constituted 62.4% of the study population. These results were comparable to a study by Oliveira et al, where 60.2% women were of third parity. Panchal et al also reported that 65% of the couples opted for sterilization after having 3 living children⁽⁶⁾.

82% of the patients belonged to lower socio-economic status while 17.9% of the patients belonged to middle class. Similar studies done by Oliveira et al showed that sterilization choice is common among women from poor households; socially disadvantaged ethnic groups especially those belonging to schedule tribe communities, working women and those with little or no education⁽⁷⁾.

74.3% of the total population belonged to Hindu community and 25.6% belonged to Muslim community. Muslim counterparts rely on other temporary methods or traditional methods⁽⁷⁾.

Women with primary education were 41.9%, secondary education were 29.5%, higher secondary education were 3.8% while graduate women were only 4 out of 234 accounting for 1.7% only. According to a study by Oliveira et al, 49.3% women were having primary education and 37.8% women were having secondary education which is comparable to our results⁽⁷⁾.

CONCLUSION

Every woman who has completed her family size and is eligible for postpartum sterilization should be counseled as per the guidelines given by the Government. We can conclude that misconceptions

regarding the procedure, low awareness and various cultural and religious factors play a major role regarding acceptance of postpartum sterilization. Thus, understanding such barriers, addressing them and trying to find solution for each factor can really improve the ratio of women undergoing sterilization. Women are more receptive and motivated for sterilization in the postpartum period, so they should be counseled accordingly.

REFERENCES

1. Lutala, P.M., Hugo, J.F. & Luhiriri, L.N. Psychosocial implications of tubal ligation in a rural health district: A phenomenological study. *Reprod Health* 8, 38 (2011). <https://doi.org/10.1186/1742-4755-8-38>
2. Reference manual for Female Sterilization. Family planning division, Ministry of Health and Family Welfare. Government of India. 2014; 17.
3. Diedrich T, Elizabeth O et al. Postpartum sterilization procedures. *The Global Library of women's Medicine's of welfare of women. GLOWM(2008)* 10145
4. T Lu et al. A long term follow up study of 1,055 cases of post partum tubal ligation. *J Obstet Gynaecol Br Emp* (1967)
5. Puwar B, Patel V, Patel M. Factors affecting sterilization operation among couples of a rural area in Ahmedabad: a record-based study. *Indian J Med Sci.* 2012;66(11-12):267-272. doi:10.4103/0019-5359.115740.
6. Panchal V, Patel V, Nayak A, Parikh J, Parikh B. Socio-demographic Factors affecting Female Sterilization Operation among Couples of Ahmedabad City Record Based Study. *Healthline.* 2021;12(2):43-48.
7. Oliveira ITd, Dias JG, Padmadas SS (2014) Dominance of Sterilization and Alternative Choices of Contraception in India: An Appraisal of the Socioeconomic Impact. *PLoS ONE* 9(1): e86654. doi:10.1371/journal.pone.0086654