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Original Research Article

A knowledge, attitude, and practice study to identify factors associated with refusal of post-partum sterilization

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ABSTRACT

Background: Aim of the study was to identify awareness among parturient women about the advantages of postpartum sterilization and common factors associated with its refusal. This study was conducted in Department of Obstetrics and Gynecology, GGS Medical College and Hospital, Faridkot. A cross-sectional study in women who delivered between August 2020 and March 2021 and gave consent.
Methods: A total of 200 patients who refused postpartum sterilization were included as per the inclusion and exclusion criteria. Data collection included a questionnaire to assess their knowledge for this procedure and the reasons for refusal, age, socio-economic status, education status, occupation of head of family, family income, awareness of advantages and disadvantages and also prevalence of various misconceptions.
Results: The 38 cases (19%) of refusals were of 20-24 years age group with maximum incidence 38.5% in 25-29 years. The chief reason for refusal was the desired chance for male child in next pregnancy resulting in maximum refusals 143 out of 200 (72%). Socioeconomic factors, educational background and work profile of the patients and family members also had influence in the decision of refusal. There were certain misconceptions in relation to refusals with almost 90% gave no preference to vasectomy, possibility of weight gain in 51%, disturbance in carrying daily work routine in 84%.
Conclusions: This study suggests need of better counselling by the healthcare workers to implement small family norm which in turn can aid to reduce maternal mortalities.

Keywords: Postpartum sterilization, Tubal Ligation, Sterilization refusal

INTRODUCTION

In India, as women appear to be solely bearing the onus of family planning, tubal sterilization is the most effective, permanent and safe method which is chosen for contraception. Post-partum tubal sterilization can be performed after vaginal delivery/during caesarean section. As the mother is already in the hospital for the delivery, this procedure is convenient and easily acceptable. Increased usage of contraception has direct effect on maternal deaths by reducing number of pregnancies.[1] 1 in 3 women of reproductive age relies upon female sterilization as a birth control method.[2] By the use of safe and effective family planning method, almost a third of pregnancy related deaths in the world could be prevented, aiding in population control on other hand.

Many women who desire postpartum sterilization do not obtain the procedure due to various barriers. It has been observed that many women who initially request postpartum sterilization antenatally do not obtain one. The fact is that while some women change their mind after delivery, others confront various barriers to completing the procedure in modern era also. The purpose of this analysis was to determine the frequency of these barriers with which the desired postpartum sterilizations were not fulfilled and the consent was denied. This study highlights the reasons why these procedures were not performed, and to identify the various predictors for this.

Aims and objectives

Aims and objectives of the study were to identify awareness among parturient women about advantages of postpartum sterilization and to identify the most common factors associated with its refusal.

Novelty and need of study

This study may be considered step forward to reduce maternal mortality by preventing high risk unwanted pregnancies.

Information can be included to educate women and family during ante-natal visit and for training of healthcare workers.

METHODS

This cross-sectional study was done at Guru Gobind Singh Medical College and Hospital, Faridkot in women who delivered between August 2020 and March 2021 and gave consent for participation in this study. The Institutional Ethical Review Committee of the hospital granted approval for the study protocol. A total of 200 patients who refused postpartum sterilization during the study period were included in the study as per the inclusion, exclusion criteria and informed consent by the patients for willingness to participate in this study. Amongst these, 110 women underwent normal vaginal delivery while 90 cases were after Caesarean section. Data collected included completion of required consent forms, a questionnaire to assess their knowledge for this procedure and the reasons for refusal. Other data collected included age, socio-economic status, education status, occupation of head of family, family income, awareness of advantages and disadvantages of post-partum tubal sterilization procedure and also prevalence of various misconceptions. SPSS 21 version was statistical software which was used to analyse data.

Inclusion criteria

Parturient women with at least one living child above 1 year of age who refused sterilization during caesarean section procedure and following vaginal delivery within 7 days of post-partum period were included in the study.

Exclusion criteria

Primipara patient, multipara post-partum patients undergoing tubal sterilization and patients with abortion were excluded from the study.

RESULTS

Table 1 shows that in our study 38 cases (19%) of refusals were of 20-24 years age group with maximum incidence 38.5% in 25-29 years group.

Table 1: Age distribution of patients with refusal.

Age (years)	No. of cases	Percentage (%)
20-24	38	19
25-29	77	38.5
30-34	58	29
35-39	23	11.5
40-44	4	2

Table 2: Reasons for refusal.

Reasons	No. of cases	Percentage (%)
Longer duration of stay	19	10
Wants more children	2	1
Desire for male child	143	72
Desire for female child	4	2
Family member denial	7	4
Bad obstetric history	12	6
Pre- and intra-operative refusal by surgeon	3	2
Unseen fear for surgery	2	1
Husband/family member not present for consent	5	3
Any other	3	2

Table 2 shows that the desire for male child outpowered other causes for refusal with 143 (72%) refusals for this concern. Refusals for bad obstetric outcome 12 (6%) were also noticed with even lesser incidence for other factors.

Table 3: Awareness of advantages of permanent sterilization.

Advantages	No. of cases	Percentage (%)
Permanent method of sterilization of contraception	200	100
Prevention of unwanted pregnancies	178	89
Convenient and cost effective	112	56
No effect on sexual life	47	24
Hormone free	59	30
Highly effective	167	84
No effect on lactation	112	56

Table 3 shows that almost all patients were aware of the permanent nature of this procedure and that it is not easily reversable. The 178 (89%) cases were aware that it will prevent unwanted pregnancies while only 112 (56%) patients were aware of the fact that it will be done free being a government institute. Effect on the future sexual life was the concern for so many cases with just fourty-seven (24%) cases were aware that this procedure will not alter sexual activity. While 167 (84%) cases were aware that this method is highly effective, the 112 (56%) cases knew that this method will have no deleterious effect on the lactation.

Table 4: Awareness of disadvantages.

Disadvantages	No. of cases	Percentage (%)
Longer duration of anaesthesia	163	82
Pelvic pain	169	85
Chance of failure	27	14
Risk of ectopic pregnancy	17	9
Does not protect from STDs	52	26
Reversal is not 100%	136	68
Longer duration the of hospital stays	110	55

Table 4 shows that as this procedure was being done along with caesarean section, 163 (82%) cases were aware that the operative time will increase while all enrolled normal vaginal delivery cases 110 (55%) were aware that as this procedure will be done after 24 hours of delivery as per guidelines, it will increase duration of hospital stay. This was a cause for refusal in 19 (10%) of vaginal delivery cases (Table 2). Only 52 (26%) cases were aware that this procedure will not protect them from sexually transmitted diseases.

Table 5: Education of head of family.

Education of head of family	No. of cases	Desire for male child	Percentage (%)
Professor	11	8	72.73
Graduate	14	10	71.43
Intermediate	8	4	50.00
High school	17	12	70.59
Middle school	33	25	75.76
Primary	39	30	76.92
Illiterate	78	54	69.23

Table 5 shows that though the desire for male child in future pregnancies was seen for more in illiterate group 54 (69%), this was also observed in 8 (72%) out of 11 professors and 10 (71%) out of 14 graduates.

Table 6: Occupation of head of family.

Occupations	No. of cases	Desire for male child	Percentage (%)
Professional	9	6	66.67
Semi profession	21	15	71.43
Clerical, shop owner, farmer	63	51	80.95
Skilled worker	7	5	71.43
Semi-skilled	21	14	66.67
Unskilled	74	52	70.27
Unemployed	5	0	0.00

Table 6 shows that in order to study the effect of occupation of head of family on the most common reason for denial, it was found that the desire for male child existed almost equally amongst all occupations.

Table 7: Family income.

Family income (INR)	Incidence	Desire for male child	Percentage (%)
More than 40095	14	10	71.43
20047-40092	11	8	72.73
14998 20044	22	18	81.82
10024-14995	56	45	80.36
6014-10021	72	51	70.83
2008-6011	25	18	72.00
less than 2008	0	0	0.0

Table 7 shows that the desire for male child was also similar in all income groups.

Table 8: Misconceptions.

Misconceptions	No. of cases	Percentage (%)
Weight gain	102	51
Husband consent is needed	0	0
Inability to do daily work	168	84
Vasectomy is not an alternative	179	90
Effects periods	94	47
Issue of regret	134	67

Table 8 shows that of all the misconceptions that were seen, issue of regret was commonly present with 64% cases of refusal along with inability to do daily work in 84%. Possibility of weight gain was of concern in 51% cases while almost 90% were against considering vasectomy as a better alternative to tubal sterilizations.

DISCUSSION

In developing countries, caesarean tubal ligation is the preferred method of sterilization.[3] One of the pillars of reproductive health which is important for maternal and child health is the family planning. Our study highlights the various barriers which can affect the family planning needs with adverse effects on national family planning programme.

In a study by Thurman et al, the authors observed that women in whom post-partum tubal ligation was not done, become pregnant within one year at alarming rate of 47% vs 22% for those not requesting ligation.[4] The same investigators also found that young age (21 to 24 years) refused the request for sterilization. In our study also young age of the patient came out to be one of the predeterminant factor for refusal as 38 cases (19%) of refusals were of 20-24 years age group with least refusals 38.5% in 25-29 years group (Table 1). In a study by Kindan et al, the maximum number of patients were grand multipara (85.4%).[5] The chief reason for refusal of postpartum sterilization in our study (Table 2) was the desire for male child in next pregnancy resulting in maximum refusals 143 out of 200 (72%) with other causes having lesser incidence. Pre- and intra-operative refusal by surgeon due to various reasons like anaemia and adhesions was in 2% of cases.

When awareness about the post-partum tubal sterilization procedure was assessed, all were aware of this method. Knowledge of its cost effectiveness and convenience was 56%, hormone free affect was 59%, no effect on sexual life was 24% with no effect on lactation was 56% (Table 3). Similarly, the awareness of disadvantages due to longer duration of anaesthesia was 82%, pelvic pain 85%, chances of its failure was 27% with risk of ectopic pregnancy was known to only 9% of cases. The 52 out of 200 cases (26%) were aware of fact that tubal sterilization does not protect from STDs and almost 68% were aware that the reversal of this procedure is difficult (Table 4).

Most of the patients who refused ligation due to desire of male child in next pregnancy had studied up to primary education i.e., 39 (19.5%) and 78 (39%) of the patients were not educated at all. In our study, the desire for the male child was the most common reason for the refusal of consent for ligation. This preference was found in almost all levels of education status (Table 5) with similar incidences in graduates to illiteracy of society as mentioned. The incidence of refusal was maximum in middle class with 51 out of 63 (80.95%) refusals were due to gender biasing (Table 6). The same incidence in Professionals was 66.67% with 6 out of 9 refusals were due to male child desire in next pregnancy. Similar incidence of refusal due to desire of male child in next pregnancy was seen in all income groups (Table 7). We could not find any study in relation to this parameter which highlighted the old mentality of Indian society in present day also.

There were certain misconceptions also in relation to refusals with almost 90% gave no preference to the male sterilization procedure that is vasectomy as a method of contraception apart from the possibility of weight gain in 51%, disturbance in carrying daily work routine in 84% (Table 8). Other major factor which needs to be addressed during counselling for post-partum sterilization is the issue of regret, the possibility of which was seen in 179 out of 200 cases (90%) in our study with a reported incidence in the United States ranging from 2 to 26 per 100 procedures. Risk factors for regret are young age, insufficient counselling, subsequent changes in family structure (change of partner/marital status), and subsequent gynaecologic or menstrual problems.[6-9] Risks for regret that are specific to postpartum tubal ligation include an abrupt decision around the time of delivery, and postpartum tubal ligation performed during caesarean delivery, especially those performed for obstetric or medical reasons. Measures to prevent post-sterilization regret include careful screening and counselling to mitigate these known risks.[6]

In 2016, the American Congress of Obstetricians and Gynecologists reaffirmed that immediate postpartum period is the ideal time for sterilization.[10,11]

Postpartum tubal ligation is a safe surgical procedure. There is very limited data on the mortality risk of postpartum sterilization. As per a large Swiss database of >5000 postpartum sterilization procedures as the death attributable to this procedure is extremely rare, it is considered a safe surgical procedure.[12] Limitations of the study include the small sample size and short-term time period. A larger sample size can better represent the population of a region minimizing the differences due to various socio cultural, religious, economic and geographic factors. Long term follows up of these cases of refusal would have highlighted the outcomes of future pregnancies which would definitely aid health care worker in better counselling.

CONCLUSION

This study highlights the various factors for refusal of very safe postpartum sterilization. Very few similar studies have been done in India and rest of the world. The healthcare workers and better antenatal care facilities can certainly play an important role in spreading more awareness in this regard to increase the acceptance of postpartum sterilization by clearing the myths and fears.

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