PSYCHOLOGICAL SEQUELAE OF TUBAL LIGATION

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SUMMARY

Three hundred women undergoing tubal ligation at Smt. Sucheta Kriplani Hospital, New Delhi, when compared with 100 D & C cases on neuroticism and depression scales showed statistically insignificant difference ($p > 0.05$) at various points of time. The improvement (in both groups) was insignificant immediately after the procedure ($p > 0.05$) but became significant after 4 and 12 weeks ($p < 0.001$). The neuroticism or depression in tubal ligation cases was hardly attributable to sterilization. The feeling of guilt, which was significantly high after the procedure in tubal ligation group, showed improvement with the passage of time.

Introduction

Tubectomy constitutes an important part of family planning services in India. Nearly 60 studies have been reported in the Indian literature where sequelae of tubal ligation have been assessed. However, only one third of these studies considered psychosocial effects of tubectomy. The most commonly reported psychological disturbances following tubectomy are anxiety, depression, hysterical fits and psychoneurosis which occur in 15% to 20% of cases (Wagh, 1966—22%; Dawn *et al*, 1968—31%; Sikand *et al*, 1968—21%; Gun, 1971—4%; Varma and Boparai, 1974—5%; Wig *et al*, 1977—26%). The present study, prospective in nature, was conducted with the aim to find out the psychological sequelae of tubal ligation and their progress with time.

Material and Method

Three hundred cases undergoing tubal ligation at Smt. Sucheta Kriplani Hospital, New Delhi were taken up as study group. This was matched age-wise with the control group (100 women undergoing Dilatation and Curettage, D & C), to rule out the influence of operative procedure. Only those cases having no past history of psychiatric or physical illness were included in the study. The patients were interviewed four times (once before and after undergoing the procedure, then after 4 and 12 weeks). The interview included recording the identification data, neuroticism on Neuroticism—2 scale (Verma, 1975), depression and the presence of feeling of guilt.

Results

The mean age of patients undergoing tubal ligation was 30.6 ± 5.2 with a range

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Accepted for publication on 15-2-88.

of 21-44 years. Majority of these (above 70 percent) were illiterates or low literates (upto primary level) and were housewives with their husband's monthly income Rs. 500 or less. Mean parity was 3.43 ± 1.46 with a range of 1-8. About 88 per cent of these were Hindus, 10 per cent Sikhs and 2 per cent belonged to other religious. The mean age of marriage was 16 ± 3.51, the mean number of male children being 2.52 ± 1.23.

The degree of neuroticism (in study and control groups) and its progress with time is shown in Table I. The patients having high neuroticism (more than 9 on N-2 scale) before undergoing the tubal ligation were 47 per cent as compared to 45 per cent in D and C group (The difference was not statistically significant; $p > 0.05$). The fall in number of patients having high neuroticism was comparable in both the groups immediately after the procedure, and 4 and 12 weeks after it. The improvement was, however, not statistically significant immediately after the procedure ($p > 0.05$) but it became highly significant after 4 and 12 weeks of operative procedure.

The patients who scored high on depression scale (i.e. more than 10) were 10 per cent in study group as compared to 8 per cent in D and C group. The fall in number of patients scoring high were comparable in both the groups immediately after as well as 4 and 12 weeks after the operative procedure. The improvement in both the groups became statistically significant ($p < 0.01$) 12 weeks after the operative procedure (Table II).

Immediately after the procedure, the the feeling of guilt was noticed in 20% of the patients undergoing tubal ligation as compared to 5% in D and C group ($p > 0.001$). The patients undergoing tubal ligation showed a statistically significant ($p < 0.001$) improvement as compared to D and C group 12 weeks after the procedure (Table III).

TABLE I

Showing Scores on N-2 Neuroticism Scale

	Tubal ligation Group (N=300)		D & C group (N=100)	
Scores	< 9	> 9	< 9	> 9
Before procedure	159 (53)*	141 (47)	55 (55)	45 (45)
After procedure	165 (55)	135 (45)	58 (58)	42 (42)
After 4 weeks	240 (80)	60 (20)	79 (79)	21 (21)
After 12 weeks	276 (92)	24 (8)	90 (90)	10 (10)

*Figures in bracket indicates percentage.

TABLE II

Showing Scores on Hamilton Rating Scale for Depression

	Tubal ligation group (N=300)		D & C group (N=100)	
Scores	< 10	> 10	< 10	> 10
Before procedure	270 (90)*	30 (10)	92 (92)	8 (8)
After procedure	270 (90)	30 (10)	92 (92)	8 (8)
After 4 weeks	276 (92)	24 (8)	94 (94)	6 (6)
After 12 weeks	294 (98)	6 (2)	98 (98)	2 (2)

* Figure in bracket indicates percentage.

TABLE III
Showing Feeling of Guilt

	Tuballigation group (N=300)		D & C group (N=100)	
	Present	Absent	Present	Absent
Before procedure	15 (5)*	285 (95)	2 (2)	98 (98)
After procedure	60 (20)	240 (80)	5 (5)	95 (95)
After 4 weeks	60 (20)	240 (80)	4 (4)	96 (96)
After 12 weeks	18 (6)	282 (94)	2 (2)	98 (98)

* Figure in bracket indicates percentage.

Discussion

In both (study and Control) groups, the degree of neuroticism and depression were higher before the procedure, which decreased gradually with the passage of time. The difference in both the groups was not statistically significant. So, the high scoring on N-2 and depression scales might be attributed to other factors like the effect of hospitalization, the fear of operative procedure, neurotic personality etc. and not because, the patients underwent tubal ligation. The trend in improvement of neuroticism and depression was also comparable in both groups. This is in contrast to other studies which report psychoneurosis in nearly 15 to 20% of tubectomy cases (Wagh, 1966—22%; Sikand *et al* 1968—21%; Dawn *et al* 1968—31%; Varma and Boparai, 1974—5%; Wig *et al* 1977—26%). The above mentioned studies are criticised on the basis that they were either retrospective (Wagh, 1966; Sikand *et al* 1968; Dawn *et al* 1968; Varma and Boparai, 1974) or did not include a control group. The tubectomy studies conducted in the West (Adams, 1964; Barnes and Zuspan, 1958; Paniagua *et al* 1964) also claim that the psychiatric disturbances following tubectomy are rare.

The feeling of guilt was, however, significant in the study group as compared to control group ($p < 0.001$) but this showed a continuous improvement with the passage of time and was significantly ($p < 0.001$) decreased 12 weeks after the procedure. This is in contrast to other studies (Adams, 1964; Jensen and Lester, 1957; Paniagua *et al* 1964) which report regret for operation in less than 5 per cent of women). In the present study, the feeling of guilt was definitely more in tubal ligation group as compared to D and C group, thus suggesting that the operative procedure played a little role in producing this feeling.

From the findings in the present study, it can be concluded that tubal ligation rarely leads to any adverse psychological outcome but the presence of feeling of guilt in a significantly higher number of women demands for careful psychiatric evaluation before and after the procedure.

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