

PSYCHIATRIC REACTIONS IN HYSTERECTOMY

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SUMMARY

50 women undergoing hysterectomy at Smt. Sucheta Kriplani Hospital, New Delhi, when compared with age and parity matched 25 control cases on neuroticism and depression scales showed statistically insignificant difference at various points of time. The improvement in both groups was insignificant one week after procedure but became significant after 4 weeks ($p < 0.01$). The neuroticism or depression in study cases was hardly attributable to hysterectomy. The marital as well as social adjustments after 4 weeks of procedure were either unchanged or improved. It is emphasized that an attempt should be made to identify the patients who are more prone to get psychiatric disturbance in order to prevent or minimise these psychiatric disturbances.

The apparent support for the hypothesis that the hysterectomy leads to adverse psychiatric sequelae, has come from some retrospective studies (Polivy, 1974; Gath et al., 1982) reporting an excess of psychiatric and somatic symptoms in post hysterectomized women. Richards (1974) posits a 'Post-hysterectomy syndrome' with depressed mood, hot flushes, urinary symptoms, fatigue, headaches, dizziness, and insomnia and also, deterioration of sexual functioning (Dennerstein et al., 1977). Kaltreider et al. (1979) suggested a post-hysterectomy 'stress response syndrome' as a reaction to the loss of child bearing capacity. But these retrospective studies, however, suffer from inadequate assessment of pre-hysterectomy psychiatric status, which prevents examination of the hypothesis that the hysterectomy, itself precipitates symptoms. Alternatively, an excess of post hysterectomy symptoms, may accrue from the overpresentation of already symptomatic women among those selected for hysterectomy. Hunter (1974), for example, proposed a 'pre-hysterectomy syndrome', pointing out that in several retrospective studies, symptoms attributed to hysterectomy had been as frequent before surgery, particularly in women with ques-

tionable pelvic pathology. In a review of the large and conflicting literature, Meikle (1977) selected the 21 studies from which inferences could be drawn, 15 of these showed that hysterectomy is followed by undesirable psychological reactions, whereas six found no such effect.

Three groups of factors have been put forward as determinants of psychiatric outcome after hysterectomy—demographic, psychiatric and physical (Gath et al., 1982). The present study was undertaken with the aim to determine the psychiatric morbidity among patients undergoing hysterectomy.

MATERIAL & METHODS

The present study included a consecutive series comprising 50 indoor cases who had a hysterectomy for menorrhagia of benign origin (due to dysfunctional bleeding, fibroids etc. but not due to malignancy) in Gynaecology and Obstetrics department of Smt. Sucheta Kriplani Hospital, New Delhi over the period January 1986 to December 1987. The patients were interviewed thrice (first within one week before hysterectomy, secondly within one week after hysterectomy and lastly after four weeks of surgery) by the

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same doctors. The interview included socio-demographic history (age, marital status, literacy, socio-economic status, etc.), gynaecological history, physical status (past and present), family health, marital and social adjustment (it was assessed after 4 weeks of operation; marital adjustment was with respect to husband, sex, work and other relations; social adjustment was in relation to peer group and other social activities), scoring on N-2 scale (Verma, 1975) and Hamilton's rating scale for depression (Hamilton, 1967). The patients with history of chronic physical illness like diabetes, malignancy etc., psychiatric illness, intake of psychotropic medication or lie score more than 3 on the N-2 scale were excluded from the study. The control group consisting of 25, age and parity matched women undergoing major gynaecological surgery other than hysterectomy. They also underwent similar examination and interviews. Kuppuswamy scale (Kuppuswamy, 1976) was used for the classification of socio-economic status.

RESULTS

The mean age of patients undergoing hysterectomy was 46.4 years (S.D. ± 4.2). Majority of cases belonged to 35-44 years of age group (44.0%) followed by 45-54 years (28.0%), 55-64 years (16.0%), 65 and above (8.0%) and 25-34 years (4.0%). Majority of these (62%) were illiterates or low literates (upto primary level) and were housewives (78 percent). 86 percent of these were Hindus, 10 percent Sikhs and 4 percent Christians. The mean age of marriage was 16.4 ± 3.51 . The married cases constituted 70 percent of the sample while 20 percent were widowed, 6 percent separated and 4 percent unmarried. The distribution of cases according to socio-economic class was—Class I (8.0%), Class II (16.0%), Class III (28.0%), Class IV (28.0%) and Class V (20.0%). Majority of cases had parity 2 (40.0%) followed by those having parity 3 (26.0%), 4 or above

(14.0%), 1 (12.0%) while 8 percent cases were nullipara. The cases underwent hysterectomy because of dysfunctional bleeding (90%), fibroid (8%) and endometriosis (2%). In the study group, 41 cases (82.0%) underwent total hysterectomy, 7 cases (14.0%) subtotal type while 2 cases (4.0%) had pan-hysterectomy. The abdominal hysterectomy was done in 48 cases (96.0%) while 2 cases (4.0%) underwent vaginal hysterectomy. There was no statistically significant association between the type of hysterectomy and psychiatric outcome. The average duration of hospitalization of cases in the study group was 12.3 days (range 8 to 18 days). This was in comparison to the average duration of hospitalization of 12.9 days (range 10 to 21 days) in the control group. The degree of neuroticism (in study and control groups) and its progress with time is shown in Table I. The patients scoring high neuroticism (more than 9 on N-2 scale) before undergoing hysterectomy were 62 percent as compared to 56 percent in control group (the difference was not statistically significant). The fall in number of patients having high neuroticism was comparable in two groups after one and four weeks of operation. The improvement was, however, not significant after the operation but became significant after 4 weeks of surgery ($p < 0.01$).

Table I shows the distribution of cases according to scores on Hamilton rating scale for depression. The number of women who scored high (more than 12) before procedure were 28 percent in the study group as compared to 24 percent in the control group (N. S.). The degree of improvement was comparable in study and control groups after one and four weeks of operation (NS). The improvement became significant after 4 weeks in both study and control groups ($p < 0.05$).

The patient's perception of marital and social adjustment was studied after four weeks of procedure (Table II). It could be studied in 35 cases (70.0%) of study group and 20

TABLE I. Scores on N-2 Neuroticism Scale and Hamilton Scale for Depression

Scores on	Before procedure		After procedure		After 4 weeks	
	Study Group (N=50)	Control Group (N=25)	Study Group (N=50)	Control Group (N=25)	Study Group (N=50)	Control Group (N=25)
(A) N-2 Scale						
less than 9	19(38.0)	11(44.0)	26(52.0)	15(60.0)	39(78.0)	19(76.0)
more than 9	31(62.0)	14(56.0)	24(48.0)	10(40.0)	11(22.0)	6(24.0)
(B) Hamilton Scale						
less than 12	36(72.0)	19(76.0)	37(74.0)	20(80.0)	43(86.0)	22(88.0)
more than 12	14(28.0)	6(24.0)	13(26.0)	5(20.0)	7(14.0)	3(12.0)

Figures in brackets indicate percentage.

TABLE II. Social and marital adjustments after 4 weeks of surgery.

Patient's perception	Study Group (N=35) Adjustment		Control Group (N=20) Adjustment	
	Marital	Social	Marital	Social
Much improved	3(8.5)	2(5.7)	2(10.0)	1(5.0)
Improved	6(16.3)	4(11.4)	5(25.0)	3(15.0)
Slightly improved	7(20.0)	6(16.3)	4(20.0)	2(10.0)
Unchanged	16(46.8)	2(60.0)	8(40.0)	12(60.0)
Slightly worse	1(2.8)	1(2.8)	—	1(5.0)
Worse	1(2.8)	1(2.8)	1(5.0)	—
Much worse	1(2.8)	—	—	1(5.0)

Figures in brackets indicate percentage.

cases (80.0%) of control group (because of their marital status). Most of the cases in both study and control groups (above 90 percent) felt their marital and social adjustment as either unchanged or improved.

After 4 weeks, the comparison of cases with high scores on Neuroticism scale (22.0%) and Hamilton rating scale (14.6%) according to marital status, parity, indication of surgery, type of surgery (with or without oophorectomy) did not show any statistical significant difference. In the study group, only one case shifted after 4 weeks from low-scores on the neuroticism and depression scales to high scores. This patient was a 41 years old, illiterate, housewife, of parity one, whose only son had developed viral encephalitis during

this interval. But, none of the cases in the control group showed this type of shift from low score to high score on these scales.

DISCUSSION

In the present study no significant association of socio-demographic factors like age, literacy, marital status, parity and socio-economic class could be found with psychiatric outcome (i.e. scores on N-2 scale and Hamilton rating scale for depression.). None of our sample showed a clearcut 'Post-hysterectomy syndrome described by Richards (1974).

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, personality factors etc. and not because, the patients underwent hysterectomy. The trend in improvement of neuroticism and depression was also comparable in both groups. It was not significant during any interview. The improvement was significant in both the groups after 4 weeks of operation. This reflects increased vulnerability of patients having high scores on N-2 and Hamilton rating scale for depression before the procedure but they showed improvement with the passage of time. Thus contradicting the hypothesis that hysterectomy leads to increased psychiatric morbidity as was reported by Ankner (1960), Barglow et al. (1965) and Richards (1973). The recent prospective studies (Martin et al., 1980; Gath et al., 1982) also reported the similar hypothesis (as of present study) that there is no post-hysterectomy increase in neuroticism or depression. The difference in the findings of studies reporting high post-hysterectomy psychiatric morbidity could be due to the facts that they either did not study the patients preoperatively (Barker, 1968; Richards, 1973) or did not use standardized psychiatric measures (Bragg, 1965) or studied psychiatric referrals of hysterectomized patients (Barker, 1968) or the prescribing of medication in general practice (Richards, 1973) or used mixed gynaecological samples e.g. patients hysterectomized for prolapse, cancer or in combination with abortion or childbirth (Barker, 1968). In another similar study conducted on women who underwent tubal ligation (Bhatia et al., 1988b), we found high neuroticism and depression scores in preoperative period which showed no statistically significant difference with the control group and improved with the passage of time. So if these patients

with a high degree of neuroticism are more prone to get psychiatric disturbance, it is important to identify these patients and help them before and after operation by the appropriate psychiatric intervention.

Most of the women in both study and control groups felt their marital and social adjustment as either unchanged or improved after 4 weeks of operation. The patients who felt deterioration in adjustments attributed this to the operation and not to the hysterectomy. This finding is similar to the findings of the study conducted in the same department which studied social and interpersonal adjustment after therapeutic abortion (Bhatia et al., 1988a). This is in contrast to other studies (Dennerstein et al., 1977; Richards, 1974) which report the deterioration in marital and sexual adjustment after hysterectomy. The difference in the observations of these studies could be due to the facts that first, they included mixed gynaecological samples including cancer patients etc. where the psychiatric morbidity could be due to chronic illness like cancer and not due to hysterectomy and secondly, they did not take a control group.

From the findings in the present study, it can be concluded that hysterectomy rarely leads to any adverse psychological outcome.

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