

Depression Following Hysterectomy

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ABSTRACT

Introduction:	Hysterectomy is the second commonest operation in women. Depression is one of the major post-operative psychological complications of hysterectomy.
Aim of the Study:	To measure the prevalence and severity of major depressive episode (MDE) following hysterectomy.
Subjects and Methods:	Thirty eight married females (age 21-48), 4 of them nullipara, were interviewed 2 weeks after doing hysterectomy without oophorectomy for evaluation of MDE. They were compared with 37 married control females after doing cholecystectomy. Clinical diagnosis of in both groups was established according to the American psychiatric Association diagnostic and statistical Manual of mental disorders, 4 th edition (DSM-IV) criteria. Both groups were subjected to Beck depression inventory (BDI).
Results:	The prevalence of MDE was significantly higher in the hysterectomy group (31.6%) compared with the cholecystectomy group (2.7%). The prevalence and severity of MDE was significantly higher in the nullipara group (75%) compared with the multipara group (26.5%).
Conclusion:	Hysterectomy increases the risk of MDE that should be promptly diagnosed and efficiently treated.

Key words: Depression, anxiety, Hysterectomy.

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INTRODUCTION

Hysterectomy is the second commonest operation in women¹. High risks of adverse psychological reactions to hysterectomy have been reported by numerous writers². These reactions have been described not only as depression, but also, as agitation, insomnia³, non specific anxiety⁴, reduced psycho-sexual functioning^{5,6} and psycho-somatic disorders⁷. British studies have drawn attention to the risks of psychiatric disorder after hysterectomy leading to the same conclusion, "Depression should be looked on as one of the major post-operative complications of hysterectomy"⁸.

Majority of women after hysterectomy can be depressed and can also show symptoms of mixed anxiety-depressive disorder and pharmacotherapy and psychotherapy should be applied in order to prevent post-operative affective disorders⁹.

It has been suggested that younger women are more at risk of psychiatric disorder after hysterectomy¹⁰⁻¹².

Women under 40 were especially at risk from depression after hysterectomy¹. Poor psychiatric outcome was also associated with low parity¹³.

A common psychodynamic theory states that the uterus has a special symbolic meaning for women, so that its loss leads

to a feeling of reduced femininity which in turn leads to psychiatric disorder^{12,14,15}.

SUBJECTS AND METHODS

Thirty eight married females (age 21-48), 4 of them nullipara, were randomly selected and interviewed 2 weeks after doing hysterectomy without oophorectomy in the department of gynecology and obstetric, King Abdul Aziz University Hospital, Jeddah, Saudi Arabia, for evaluation of major depressive episode (MDE). They were compared with 37 married control females that were randomly selected after doing cholecystectomy in the surgery department King Abdul Aziz University Hospital. There was a negative family history for any psychiatric illness in both groups.

The interview was done with presence of a closely related family member after taking consent from patients and their related family member. This study was done from March 2008 till July 2009.

The studied groups were clinically evaluated for MDE according to the American psychiatric Association diagnostic and statistical Manual of mental disorders, 4th edition text revised (DSM-IV TR) criteria¹⁶ and subjected to the following measures:

1. The structured clinical interview for the DSM-IV Axis I disorders, clinical version(SCID-I-CV)¹⁷.
2. Beck depression inventory (BDI)¹⁸ to assess the severity of major depressive episode. It consists of 21 questions with a value 0-3 for each answer. The standard cut-offs are as follows: 0-9 not depressed, 10-18 mild depression, 19-29 moderate depression and 30-63 severe depression, higher total scores indicate more severe depression. Cronbach's alpha coefficient is around 0.85¹⁹.

Exclusion criteria:

1. Patients with past history of psychiatric illness.
2. Patients with severe medical disorder (rather than that leads to hysterectomy or cholecystectomy) or substance abuse.

3. Patients doing hysterectomy and cholecystectomy due to cancer etiology as cancer itself can precipitate psychiatric symptoms/disorders.
4. Patients with language barrier.

Data were analyzed by using statistical package for social sciences software (SPSS) version 17. Data was presented as mean±SD for quantitative variable, number and percentage for qualitative one. Student's t test, Chi-square and mann-whitney u test were used. P<0.05 was considered significant²⁰.

RESULTS

Table (1) shows insignificant difference between patients after hysterectomy and patients after cholecystectomy as regards age, occupation, socioeconomic state and race.

Table 1: Socio-demographic data.

Variable	Patients after hysterectomy (N=38)		Patients after cholecystectomy (N=37)		T	P
	(Mean±SD)		(Mean±SD)			
Age	34.42±6.52 (21-48)		33.59±6.48 (20-47)		.55	> 0.05
	No.	%	No.	%	Chi square	
Occupation						
Employed	22	57.9	25	67.5	.384	> 0.05
Unemployed	16	42.1	12	32.5		
Socio-economic state (income and housing)						
Average	24	63.2	21	56.8	.108	> 0.05
Low	14	36.8	16	43.2		
Race						
Saudi	18	47.4	17	45.9		
Egyptian	10	26.2	9	24.3	.159	> 0.05
Sudanese	5	13.2	6	16.3		
Yemeni	5	13.2	5	13.5		

Table (2) shows high significant increase in the prevalence of MDE in patients after hysterectomy compared with patients

after cholecystectomy.

Table 2: Comparison between the prevalence of MDE among studied groups (patients after hysterectomy and patients after cholecystectomy).

MDE	Patients After Hysterectomy (N=38)		Patients after cholecystectomy (N=37)		CHI square	P
	No.	%	No.	%		
Positive	12	31.6	1	2.7	10.91	.001
Negative	26	68.4	36	97.3		

Table (3) shows significant negative correlation between age of depressed patients after hysterectomy and BDI score

Table 3: Pearson correlation between age of depressed patients after hysterectomy and BDI score.

		BDI	Age
BDI	Pearson correlation	1	-.672*
	Sig.(2-tailed)		.017
	N	12	12
Age	Pearson correlation	-.672*	1
	Sig.(2-tailed)	.017	
	N	12	12

*Correlation is significant at the 0.05 level (2-tailed)

Table (4) shows a significant increase in the prevalence of MDE in nullipara group compared with multipara group.

Table 4: Comparison between the prevalence of MDE in nullipara and multipara groups.

MDE	Nullipara (N=4)		Multipara (N=34)		CHI square	P
	No.	%	No.	%		
Positive	3	75	9	26.5	3.90	.048
Negative	1	25	25	73.5		

Table (5) shows significant increase in the BDI mean score in nullipara group compared with multipara group.

Table 5: Comparison between the nullipara and multipara groups according to BDI mean score.

	Nullipara	Multipara	Mann-whitney u	P
BDI score (Mean±SD)	28.33±6.66	18.55±3.97	2.00	0.036

Table (6) shows increased severity of MDE in the nullipara group compared with multipara group.

Table 6: Severity of MDE in the studied groups according to mean score of BDI.

	Nullipara (N=4)			Multipara (N=34)			Patients after cholecystectomy (N=37)	
	No.	%	Mean score	No.	%	Mean score	No.	Score
Mild depression	0	0	—	6	17.7	16±.89	1	14
Moderate depression	2	50	24.5±.70	3	8.8	23.6±1.5	0	—
Severe depression	1	25	36	0	0	—	0	—

Table (7) shows the etiology of hysterectomy.

Table 7: Etiology of hysterectomy.

Etiology	Patients (N=38)	
	No.	%
Dysfunctional uterine bleeding (resistant to medical therapy)	15	39.5
Fibroid	11	28.9
Prolapse	8	21.1
Endometriosis / adenomyosis	4	10.5

DISCUSSION

In this study there was high significant increase in the prevalence of MDE in patients after hysterectomy (31.6%) compared with patients after cholecystectomy (2.6%) (Table 2). This finding is in consistent with earlier reports that hysterectomy frequently leads to psychiatric disorder²¹.

Women who have had hysterectomy are 4 times more likely to become depressed than women who have not had hysterectomy¹. The difference in incidence of depression is statistically highly significant; moreover, the onset of depression is clearly related in time to the hysterectomy and the risk of post-operative depression developing declined with increasing age.

Anxiety or depression may persist or develop post-operatively in some patients doing hysterectomy²².

Depression is the most common psychiatric risk after hysterectomy²³. There were some women who were not depressed before hysterectomy but became depressed after²⁴.

The majority of women after hysterectomy can be depressed and can show symptoms of mixed anxiety-depressive disorder and pharmacotherapy and psychotherapy should be applied in order to prevent post-operative affective disorders⁹.

A study on 300 women aged 25-50 years who had undergone a hysterectomy within past 2 years, reported there was fatigue that is contributed to frustration in 52% and to depression in 37%²⁵.

Also hysterectomy had negative short and long term psychological consequences for some women²⁶.

The symbolic meanings of the uterus are summarized as: femininity, child bearing, sexuality, strength, vitality, youth, attractiveness, competency, regulation of body processes and control of the rhythm of life. The wish of future children is correlated with post hysterectomy depression independent of whether the women have borne children²⁸.

The common opinion amongst women that surgical removal of the uterus and ovaries can because of limited physical and sexual activity and have an effect on their attractiveness⁹.

Also in this study there was a significant negative correlation between age of patients doing hysterectomy and severity of depression as depression increased in severity with decrease in age (Table 3). This finding is also supported by other studies, reported that women aged between 30-39 had an especially high risk of being admitted to mental hospital after hysterectomy¹¹.

Also women under 40 years were especially at risk of depression after hysterectomy¹. In addition the greater risk of poor psychological health is among women who underwent hysterectomy before age^{29,40}.

A potential explanation is that women who underwent a hysterectomy at younger ages have been found to be more likely to report a desire to have another child and they lost the ability to have children earlier than women who had hysterectomies at later ages³⁰.

Also in this study there was a significant increase in the prevalence and severity of MDE in nullipara group (75%) compared with multipara group (26.5%) (Table 4,5,6). This finding, supported by many studies, indicate that poor psychiatric outcome was associated with low parity¹³, and that poor psychological health would be stronger in nulliparous women and women with only one child than in women with 2 or more children²⁹. Also married nullipara suffered from enhanced depression post-hysterectomy³¹. In our study there was a case of severe depression in the nullipara group (table 6) that received antidepressant treatment immediately after taking her consent.

CONCLUSION

Hysterectomy increases the risk of depression in women. The prevalence and severity of depression increases in the nullipara group compared with the multipara group. So searching for depressive symptoms and its treatment in women after hysterectomy is mandatory.

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