Depression among Gynecologic Cancer Patients at Siriraj Hospital: Prevalence and Associated Factors

Pattaya Hengrasmee MD*,
Puchong Padungsutt MD*, Dittakarn Boriboonhirunsarn MD, MPH, PhD*

**Department of Obstetrics and Gynecology, Faculty of Medicine Siriraj Hospital, Mahidol University*

Objective : *The purposes of this study were to determine the prevalence of depression and associated risk factors among women with gynecologic cancer at Siriraj Hospital.*
Design : *Descriptive cross-sectional study*
Setting : *Gynecologic Oncology Unit, Department of Obstetrics and Gynecology, Faculty of Medicine, Siriraj Hospital*
Subjects : *A total of 149 women with gynecologic cancer were enrolled.*
Method : *Women's demographic data and medical information were obtained by interview and abstracted from the medical record. The health-related self-report (HRSR) questionnaire was used to determine the prevalence of depression. Certain characteristics regarding demographic and medical data were evaluated in order to find any correlation with depression.*
Results : *The diagnoses in this study population included 77 cases (51.7%) of ovarian cancer, 34 cases (22.8%) of cervical cancer, 20 cases (13.4%) of uterine cancer and 18 cases (12.1%) of gestational trophoblastic tumor. The mean age was 46.6 years. Depression was detected in 20 out of 149 patients, which yielded a prevalence of 13.4 % (95% CI 7.9-18.9%). Low income (less than 5,000 baht per month), cervical cancer, radiation treatment regimen, and poor performance status were associated with increased risk of depression.*
Conclusion : *Depression is one of the most common psychological distresses experienced by cancer patients. The prevalence of depression among gynecologic cancer patients at Siriraj Hospital was as high as 13.4%. Risk factors included low income, diagnosis of cervical cancer, radiation treatment regimen, and poor performance status. These patients should receive adequate medical attention and careful evaluation for depression especially those with such associated risk factors.*

Keywords : *Depression, Gynecologic cancer, Risk factors*

J Med Assoc Thai 2004; 87(Suppl 3): S74-9

The diagnosis and treatment of cancer is a major life stress that results in a range of quality of life disturbance including physical, psychological, and social well-being[1]. The psychosocial aspect comprises three broad domains: changes in life patterns, fear and concerns, and psychological discomfort[2]. Psychological discomfort includes anxiety, anger, guilt, and depression[3]. These difficulties experienced may persist and change over time depending upon the type of disease and the specific treatment demands[4].

Correspondence to : Hengrasmee P, Department of Obstetrics and Gynecology, Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok 10700, Thailand.

There have been relatively few studies regarding quality of life (QOL), especially in psychological aspect, among women with gynecologic malignancies in Thailand. The lifetime prevalence of depression among general population in the United States varies from 17 to 25 percent[5]. Cancer patients experience a range of psychological symptoms including depression and anxiety more frequently than general population[6]. Those with advanced stage of disease, uncontrolled pain, a history of a mood disorder, or a treatment regimen that produces depressive symptoms are at highest risk for depression[7]. Poor performance status was also significantly related to

high depression and anxiety among ovarian cancer patients[8].

Approximately 25 percent of hospitalized cancer patients have depressive symptoms that would meet established criteria of major depression or an adjustment disorder with depressed mood[7]. It has also been found from a previous study that depression was the most commonly described psychosocial difficulty reported in 81 percent of women with gynecologic cancer at diagnosis and during treatment[1]. In addition, depression can be fatal because it may aggravate their diseases and may result in suicidal ideas and attempts[9]. Unfortunately, it is commonly underdiagnosed and receives inadequate medical attention. According to these, we considered depression as the pivot in the assessment of psychosocial problems among women diagnosed and treated for gynecologic malignancies.

The main objective of this study was to determine the prevalence of depression among women with gynecologic cancer at the time of diagnosis and over time by using the health-related self-report (HRSR) questionnaire as a diagnostic-screening instrument. Certain characteristics regarding demographic and medical data were also evaluated whether they were associated with depression.

Material and Method

Patient characteristics and procedures

Women who had been diagnosed and treated for gynecologic cancer in the Gynecologic Oncology Unit at Siriraj Hospital during January to April 2004 were eligible for this study. These included women who had been previously diagnosed and treated and were free of disease at their recent outpatient visit and those who were diagnosed and treated in the hospital (either first diagnosed or recurrent cases) during the study period.

A total of 149 women were enrolled. Diagnoses included ovarian, cervical, uterine, and gestational trophoblastic tumor. Women's demographic data and co-morbid symptoms were obtained by interview. All medical information including status of disease, stage of disease, modality of treatment, performance status, and time since diagnosis was abstracted from the medical record.

The health-related self-report (HRSR) questionnaire was used to assess depression in this study. It is a twenty-item rating scale with a total score ranging from 0 to 60, representing four symptom areas of depression and three positive symptoms[9]. It was adapted from the CES-D (Center for Epidemiologic Studies-Depression) scale guideline[10] to be used as a diagnostic screening test for depression in Thai people. With the cut off score of 25 or over, it gives high specificity and sensitivity for diagnosis of depression. The questionnaire has a clear factorial structure, good clinical validity, and adequate reliability (Cronbach's a 0.91)[9]. The study protocol was ethically approved by Department of Obstetric and Gynecology Committee, Siriraj Hospital, Mahidol University.

Participants were asked to rate each symptom of depression on a scale from 0 ("never") to 3 ("frequent") regarding how frequent they had experienced it during the preceding two weeks. Following informed consent, the subjects completed study questionnaires, either by being interviewed or self-administered, in the presence of one of the authors or a nurse experienced in working with gynecologic cancer patients.

Statistical analyses

All statistical analyses were performed with the Statistical packages for the Social Sciences (SPSS) version 11.0 for Windows. Demographic data were expressed as number, percentage, mean, and standard deviation (SD). The cut off score of 25 was used to determine depression in the participating subjects[9]. Chi-square tests and Student-T test were used to compare between those with and without depression as appropriate.

Results

Patient characteristics and medical data

Our study included a total of 149 women diagnosed and treated for gynecologic cancer. The mean age was 46.6 years. All other demographic variables, including marital status, education, and income are presented in Table 1.

Patient medical data are presented in Table 2. The diagnoses included 77 cases (51.7%) of ovarian cancer, 34 cases (22.8%) of cervical cancer, 20 cases (13.4%) of uterine cancer and 18 cases (12.1%) of gestational trophoblastic tumor. While 69 women (46.3%) were first diagnosed and treated for cancer and 26 women (17.4%) were having recurrent disease, 54 of them (36.2%) were attending post therapy surveillance program.

We also found that 50 patients (33.6%) were in early stage of disease (stage I), 70 patients (47%) were in advanced stage, and 29 patients (19.5%) were in recurrent group. Two thirds of gynecologic cancer patients (95 of 149; 63.8%) were treated with a

Table 1. Patient characteristics (N = 149)

Demographic data	N (%)
Mean age ± SD (years)	46.6 ± 11.5
Marital status	
Never	41 (27.5)
Married	83 (55.7)
Separated/divorced/widowed	25 (16.8)
Education	
Primary school or less	74 (49.7)
High school	27 (18.1)
College or post-graduate degree	48 (32.2)
Income (per month)	
Less than 5,000 baht	63 (42.3)
5,000-10,000 baht	30 (20.1)
Over 10,000 baht	56 (37.6)

Table 2. Medical information of 149 patients

Medical data	N (%)
Gynecologic cancer	
Ovarian cancer	77 (51.7)
Cervical cancer	34 (22.8)
Corpus cancer	20 (13.4)
Gestational Trophoblastic Tumor	18 (12.1)
Status of disease	
First diagnosis & treatment	69 (46.3)
Recurrent disease	26 (17.4)
Post therapy surveillance	54 (36.2)
Stage of disease	
Early stage (stage I)	50 (33.6)
Advanced stage	70 (47.0)
Recurrent	29 (19.5)
Modality of treatment	
Chemotherapy	33 (22.1)
Radiation	12 (8.1)
Surgery	9 (6.0)
Combined treatment	95 (63.8)
Performance status	
Asymptomatic	118 (79.2)
Symptomatic	31 (20.8)
Time since diagnosis	
Less than 3 months	41 (27.5)
3-6 months	23 (15.4)
6-12 months	15 (10.1)
More than 12 months	70 (47.0)

combination of different treatment modalities. The remaining one third had undergone a single modality either chemotherapy, radiation, or surgery. Almost 80 percent (118 of 149) of the patients were asymptomatic. In terms of time since diagnosis, approximately half of the patients had been diagnosed and treated for more than 12 months.

Of 149 women diagnosed and treated for gynecologic cancer, 20 cases were discovered by the HRSR scale to have depression. Therefore, the prevalence was 13.4 % (95% CI 7.9-18.9%).

Table 3 shows the comparison between those with and without depression in terms of demographic data. We found that there were no significant differences with regard to age and education. For marital status, we discovered that women with any kind of relationship breakdown, either separated, divorced, or widowed, although showed a tendency towards depression but did not differ significantly ($p = 0.063$). Moreover, significantly higher depression in women with low income (less than 5,000 baht per month) was found when compared to those with higher income ($p = 0.006$).

Table 4 provides all details about prevalence of depression regarding to patient medical data. In cervical cancer patients, there was significantly greater percentage of depression than patients with cancer of other kinds ($p = 0.029$). A relevant result was obtained in the treatment modality group as we also discovered strikingly higher percentage of depression in radiation modality treated subgroup ($p = 0.02$).

Patients with recurrence of diseases were more likely to have greater depression than those with advanced stage and early stage of diseases respectively, but there was no statistical significance ($p = 0.126$). Comparison among patients in different disease status showed no significant difference ($p = 0.245$). However, patients who were free of disease and were attending post therapy surveillance program seemed to have less depression than patients in other groups.

We also found significantly higher percentage of depression in patients with poor performance status compared with those having no symptom ($P=0.008$). But there was no difference in the matter of time since primary diagnosis among patients in each category.

Discussion

As previously mentioned, the diagnosis and treatment of cancer is a major life stress which could lead to deterioration of quality of life including physical, psychological, and social well-being. Our study focused mainly on depression in gynecologic cancer patients, since it was the most commonly described psychosocial difficulty reported in 81 percent of the patients[1] and might result in suicidal ideas and attempts[9].

Table 3. Prevalence of depression based on demographic data

Demographic data	Depression N (%)	No depression N (%)	p-value
Mean age ± SD (years)	50.4 ± 9.6	46 ± 11.7	0.108
Marital status			
Never	4 (9.8)	37 (90.2)	0.063
Married	9 (10.8)	74 (89.2)	
Separated/divorced/ widowed	7 (28.0)	18 (72.0)	
Education			
Primary school or less	14 (18.9)	60 (81.1)	0.147
High school	2 (7.4)	25 (92.6)	
College or post-graduate degree	4 (8.3)	44 (91.7)	
Income (per month)			
Less than 5,000 baht	15 (23.8)	48 (76.2)	0.006
5,000-10,000 baht	2 (6.7)	28 (93.3)	
Over 10,000 baht	3 (5.4)	53 (94.6)	

Table 4. Prevalence of depression based on medical information

	Depression N (%)	No depression N (%)	p-value
Gynecologic cancer			
Ovarian cancer	10 (13.0)	67 (87.0)	0.029
Cervical cancer	9 (26.5)	25 (73.5)	
Corpus cancer	1 (5.0)	19 (95.0)	
Gestational Trophoblastic Tumor	0	18 (100.0)	
Status of disease			
First diagnosis & treatment	11 (15.9)	58 (84.1)	0.245
Recurrent disease	5 (19.2)	21 (80.8)	
Post therapy surveillance	4 (7.4)	50 (92.6)	
Stage of disease			
Early stage (stage I)	4 (8.0)	46 (92.0)	0.126
Advanced stage	9 (12.9)	61 (87.1)	
Recurrent	7 (24.1)	22 (75.9)	
Modality of treatment			
Chemotherapy	2 (6.1)	31 (93.9)	0.02
Radiation	5 (41.7)	7 (58.3)	
Surgery	1 (11.1)	8 (88.9)	
Combined treatment	12 (12.6)	83 (87.4)	
Performance status			
Asymptomatic	11 (9.3)	107 (90.7)	0.008
Symptomatic	9 (29.0)	22 (71.0)	
Time since diagnosis			
Less than 3 months	6 (14.6)	35 (85.4)	0.99
3-6 months	31 (13.0)	20 (87.0)	
6-12 months	2 (13.3)	13 (86.7)	
More than 12 months	9 (12.9)	61 (87.1)	

The health-related self-report (HRSR) diagnostic scale was used as an instrument for detecting depression in this study. With the cut-off score of 25, it provided 93.4% specificity and 75.1% sensitivity for diagnosis of depression[9]. The reliability coefficient (Chronbach's α) of the HRSR scale was 0.91 and was found to possess a clear factorial structure and clinical validity[9].

Depression was detected in 20 out of 149 patients, which yielded a prevalence of 13.4 percent (95% CI 7.9-18.9%). This was obviously lower than the lifetime prevalence of depression in general population (17 to 25%)[5]. Different study population and the application of different types of psychological instruments for determination of depression could have been responsible for this outcome. Furthermore, our study used hospital-based population of which the results might not accurately reflect the prevalence among general population.

The correlation between demographic data and depression was established. Women with low income (less than 5,000 baht per month) were found to be at highest risk for depression, which differed from a previous study report[11]. This might be due to decrements in quality of life either in physical, psychological, or social well-being aspect. In terms of marital status, we found a tendency towards depression in women with relationship breakdown, either separated, divorced, or widowed, but there was no statistical significance. This finding was quite different from the result obtained from a previous study. Bodurka-Bevers et al[8]. reported no difference in percentage of depression among divorced or separated women and those in the other groups. The reasons for this contrast might be the difference in geographic data, cultures, and people lifestyles.

For mean age and education, our study found no correlation between these categories and depression. However, previous study[8] showed that younger patients (≤50 years) were more likely to be depressed than older patients.

The correlation between certain characteristics regarding patient medical data and depression was also evaluated. Our study found that patients with the diagnosis of cervical cancer, radiation treatment regimen, and poor performance status were at highest risk for depression. These findings were quite different from what had been found in overall cancer patients from a previous study in which reported risk factors included advanced stage of disease and treatment regimen that produced

depressive symptoms[11].

Among cervical cancer patients, most were having advanced stage of disease at time of diagnosis. As a result, radiation would be the most appropriate treatment option in this situation. This treatment modality could bring about many long-term sequelae especially radiation cystitis and proctitis. These complications, suffered by the patients, might contribute to decrements in quality of life and led to the significantly high percentage of depression in this group.

Poor performance status was significantly related to high prevalence of depression in our study. This finding was quite similar to the pattern found in the previous studies of quality of life among patients with ovarian cancer [8] and among those with other kinds of cancer[12]. These data suggest that patients with poor performance status should receive careful evaluation for depression.

Patients with advanced stage and recurrent stage of disease, who were usually treated extensively with chemotherapy, tended to have more depression than those in early stage. However, this trend did not reach levels of statistical significance. This finding echoed that of Lutgendorf et al.[11] This correlation was similar to what was found in the disease status group. Patients who were receiving active treatment for their disease, either first diagnosed or recurrent subgroup, had greater depression than those who were being seen for post-treatment surveillance[7]. Nevertheless, no significant difference had been reported.

Several studies have documented the effectiveness of psychosocial interventions in helping cancer patients adjust to their diagnosis and treatment[13-16]. Thus, psychosocial interventions may be helpful in alleviating depression and improving quality of life in gynecologic cancer patients. As health care professionals, it is important that we perform a comprehensive assessment in order to be able to evaluate both physical and psychosocial well being and improve quality of life of these patients.

References

1. Steginga SK, Dunn J. Women's experiences following treatment for gynecologic cancer. Oncol Nurs Forum 1997; 24: 1403-8.
2. Meyerowitz BE. Psychosocial correlates of breast cancer and its treatment. Psycho Bull 1980; 8: 108-131.
3. Silberfarb PM, Greer S. Psychological concomitants cancer: Clinical aspects. Am J Psychother 1982; 36: 470-8.
4. Andersen BL. Predicting sexual and psychological morbidity and improving the quality of life for women with gynecologic cancer. Cancer 1993; 71: 1678-90.
5. Kessler RC, McGonagle KA, Zhao S, et al. Lifetime and 12-month prevalence of DSM-III-R psychiatric disorder in the United States. Arch Gen Psychiatry 1994; 51: 8-19.
6. Spiegel D. Cancer and depression. Bri J Psychiatry 1996; 168: 109-16.
7. Massie MJ, Holland JC. Depression and the cancer patient. J Clin Psychiatry 1990; 51: 12-7.
8. Bodurka-Bevers D, Basen- Engquist K, Carmack CL, Fitzgerald MA, Wolf JK, deMoor C, et al. Depression, anxiety, and quality of life in patients with epithelial ovarian cancer. Gynecol Oncol 2000; 78: 302-8.
9. Kasantikul D, Limsuwan N, Vuthiganond S, Tantipiwatanakul P, Karnjanathanalers N, Thongtang O, et al. Health-Related Self-Report (HRSR) Scale: The diagnostic screening test for depression in Thai population. J Med Assoc Thai 1997; 80: 647-56.
10. Radloff LS. The CES-D Scale: A self-report depression scale for research in the general population. Appl Psychol Measur 1997; 1: 385-401.
11. Lutgendorf SK, Anderson B, Rothrock N, Buller RE, Sood AK, Sorosky JI. Quality of life and mood in women receiving extensive chemotherapy for gynecologic cancer. Cancer 2000; 89: 1402-11.
12. Portenoy RK, Thaler HT, Kornblith AB, McCarthy Lepore J, Friedlander-Klar H, Coyle N, et al. Symptom prevalence, characteristic and distress in a cancer population. Qual Life Res 1994; 3: 183-9.
13. Andersen BL. Psychological interventions for cancer patients to enhance the quality of life. J Consult Clin Psychol 1992; 60: 552-68.
14. Baum A, Herberman H, Cohen L. Managing stress and managing illness survival and quality of life in chronic disease. J Clin Psychol Med Settinds 1995; 2: 309-33.
15. Fawzy IF, Fawzy NW, Arndt LA, Pasnau RO. Critical review of psychosocial interventions in cancer care. Arch Gen Psychiatry 1995; 52: 100-13.
16. Meyer TJ, Mark MM. Effects of psychosocial interventions with adult cancer patients: a meta-analysis of randomized experiments. Health Psychol 1995; 14: 101-8.

ภาวะซึมเศร้าในผู้ป่วยมะเร็งทางนรีเวชในโรงพยาบาลศิริราช: ความชุก และปัจจัยที่เกี่ยวข้อง

พัทยา เฮงรัศมี, ภุชงค์ ผดุงสุทธิ์, ดิฐกานต์ บริบูรณ์หิรัญสาร

วัตถุประสงค์ *: เพื่อศึกษาหาความชุก และปัจจัยเสี่ยงของภาวะซึมเศร้าในผู้ป่วยมะเร็งทางนรีเวชในโรงพยาบาลศิริราช*

ชนิดของการวิจัย *: การวิจัยเชิงพรรณนา แบบตัดขวาง*

สถานที่ทำการวิจัย *: หน่วยมะเร็งทางนรีเวช ภาควิชาสูติศาสตร์-นรีเวชวิทยา คณะแพทยศาสตร์ศิริราชพยาบาล มหาวิทยาลัยมหิดล*

กลุ่มตัวอย่าง *: สตรีที่ได้รับการวินิจฉัยด้วยโรคมะเร็งทางนรีเวชทุกระยะ ทั้งกลุ่มที่ตรวจพบครั้งแรกซึ่ง อยู่ในระหว่างการรักษา กลุ่มที่กลับเป็นซ้ำ และกลุ่มที่ได้รับการรักษาแล้ว และอยู่ในระหว่างการตรวจติดตามอาการ ตั้งแต่เดือนมกราคม ถึง เดือนเมษายน 2547 จำนวน 149 ราย*

การกระทำ *: ทำการรวบรวมข้อมูลพื้นฐานและข้อมูลทางการแพทย์ของผู้ป่วยมะเร็งทางนรีเวชที่เข้าร่วมในการวิจัย โดยการสัมภาษณ์และการทบทวนเวชระเบียนผู้ป่วย ทำการตรวจหาความชุกของภาวะซึมเศร้า โดยใช้แบบสอบถามเพื่อตรวจวัดหาโรคซึมเศร้าในประชากรไทย (HRSR) รวมทั้งทำการวิเคราะห์เพื่อประเมินหาปัจจัยที่เกี่ยวข้องกับภาวะซึมเศร้า*

ผลการวิจัย *: ผู้ป่วยทั้งหมด 149 ราย แบ่งเป็น ผู้ป่วยมะเร็งรังไข่ 77 ราย (51.7%) มะเร็งปากมดลูก 34 ราย (22.8%) มะเร็งมดลูก 20 ราย (13.4%) และมะเร็งของเนื้อรก 18 ราย (12.1%) อายุเฉลี่ยของผู้ป่วย คือ 46.6 ปี และพบภาวะซึมเศร้าในผู้ป่วยจำนวน 20 ราย คิดเป็นความชุก 13.4% นอกจากนี้ยังพบว่า ปัจจัยเสี่ยงต่อภาวะซึมเศร้าในผู้ป่วยมะเร็งทางนรีเวช ได้แก่ รายได้น้อย (น้อยกว่า 5,000 บาทต่อเดือน) ได้รับการวินิจฉัยเป็นมะเร็งปากมดลูก ได้รับการรักษาด้วยการฉายรังสี และมีภาวะเจ็บป่วยตั้งแต่น้อยถึงรุนแรง*

สรุป *: ภาวะซึมเศร้า เป็นภาวะที่พบได้บ่อยในผู้ป่วยมะเร็ง และจากการศึกษาหาความชุกของภาวะนี้ในผู้ป่วยมะเร็งทางนรีเวชในโรงพยาบาลศิริราช พบว่ามีภาวะซึมเศร้าถึง ร้อยละ 13.4 โดยปัจจัยเสี่ยงที่สำคัญ ได้แก่ การมีรายได้น้อย ได้รับการวินิจฉัยเป็นมะเร็งปากมดลูก ได้รับการรักษาด้วยการฉายรังสี และมีภาวะเจ็บป่วยตั้งแต่น้อยถึงรุนแรง ดังนั้น แพทย์ซึ่งมีหน้าที่ดูแลผู้ป่วยกลุ่มนี้ จึงควรให้ความสำคัญ เกี่ยวกับการประเมินและวินิจฉัยภาวะนี้ โดยเฉพาะในผู้ป่วยที่มีปัจจัยเสี่ยงดังกล่าว*