

Analysis of Early Symptoms of Women with Malignant Ovarian Neoplasm in Adam Malik General Hospital

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Abstract: The aim of this study was to determine the early symptoms that are experienced by patients with ovarian cancer and compared with non-ovarian neoplasm. This study used an analytical retrospective design. Study participants included 54 women with ovarian cancer in Adam Malik General hospital between January until August 2016. Cases of ovarian cancer (n=25 patients) were compared with 29 patients with non-ovarian neoplasms. Information concerning symptoms was obtained via interview. From this study, we found that 11 significant subjective complaints in ovarian cancer patients ($p < 0.05$) compared with the controls i.e. tired / less powerful, abdominal pain, flatulence / quick feel full, bigger stomach, palpable lump in the stomach, heartburn, pelvis feels heavy / full, hard breathing, low back pain, lower back pain, weight gain. The early symptoms of women with ovarian cancer were statistically significant are: tired / less powerful, abdominal pain, flatulence / rapid feeling, full of stomach, palpable lumps in stomach, heartburn, pelvis feel heavy / full, hard breathing, low back pain, weight gain.

1 INTRODUCTION

Ovarian cancer is still a cause of high mortality due to cancer. In 2005-2009 as many as 8.2 per 100.000 women died from cancer. It is estimated that around 22.280 women in 2012 will suffer from ovarian cancer and about 15,500 of them die from ovarian cancer. Based on age, the incidence of ovarian cancer is 12.7 per 100,000 women annually (Howlader, 2012). In Indonesia from 2007-2011 1623 new cases of ovarian cancer from 7199 cases of gynaecologic cancer occurred (Inasgo, 2012). Ovarian cancer is the second most common gynaecological cancer after cervical cancer in Indonesia (Inasgo, 2012), (Smith, 2006), (Ranney, 1979), (Kennedy, 1981), (Igoe, 1985), (Flam, 1988), (Wikborn, 1993), (Nelson, 1999), (Eltabbakh, 1999), (Goff, 2000), (Kirwan, 2002), (Copeland, 2007). Some studies suggest that ovarian cancer has early symptoms similar to those of other diseases, so patients are treated with no specific complaints (Inasgo, 2012), (Jemal, 2007), (Smith, 2006), (Ranney, 1979), (Kennedy, 1981), (Igoe, 1985), (Flam, 1988), (Wikborn, 1993), (Nelson, 1999), (Eltabbakh, 1999), (Goff, 2000), (Kirwan, 2002), (Copeland, 2007), (Berek, 2007), (FIGO, 2000). In developing countries, especially in

Indonesia, public knowledge and awareness about ovarian cancer is lacking, and a very strong community culture of disease should be "sick". Therefore, symptoms are the main reason people to seek a doctor. For this reason, researchers want to know whether ovarian cancer and benign ovarian tumours have early symptoms, and whether there are differences in symptoms between the two, to help doctors and primary healthcare workers raise awareness and care in ovarian cancer screening when they have symptoms -the initial symptom. The aim of this study was to determine the symptoms that are experienced by patients with ovarian cancer and to compare those symptoms with the symptoms that are experienced by patients with non-ovarian neoplasm.

2 MATERIAL AND METHODS

This study used an analytical retrospective design. Study participants included 54 women with ovarian cancer from January until August 2016 in Department of Obstetrics and Gynecology, Faculty of Medicine, Universitas Sumatera Utara, Haji Adam Malik General hospital, Medan, Indonesia. We divided the samples into two groups: cases of ovarian cancer

(n=25 patients) as study group were compared with 29 patients with non-ovarian neoplasms as control group. Information concerning symptoms and presentation history was obtained via interview. Characteristics of patients in general, histopathologic, staging, operative procedure during laparotomy are recorded. The inclusion criteria of this study was Patients with histopathologic ovarian cancer diagnosis, patients with full awareness / can answer questions well and Willing to follow the research. Exclusion criteria: patients with tumor of intestinal, stomach, liver, uterine, cervix, vagina, vulva, breast with different histopathology with ovarian cancer (double primer), and with hepatitis, heart disease, pulmonal disease in medical record. All previous samples were asked for approval to be included in this study and then interviewed with a questionnaire provided by the researcher. Characteristics of patients in general, histopathologic diagnosis, stage at diagnosis, actions performed during laparotomy are recorded. After interviews, the data were collected, tabulated and analyzed. Data is presented in the form of data analysis using SPSS.

3 RESULTS

This study was conducted during July 2011, and found 59 subjects with 25 cases of ovarian cancer were included in the case group, 29 respondents as control and 5 cases excluded because of histopathology of benign ovarian tumor. Characteristics of the subjects based on age and education can be seen in table 1. Table 1 showed that majority of the subjects were in the range 20-29 years age for ovarian cancer cases as many as 7 subjects (28%), and in the range 40-49 years age for control as many as 9 subjects (31%) and The level of education at the high school level in the case group was 9 subjects (36%) and the elementary school level in the control group was 14 subjects (48.4%). Characteristics of the subjects based on clinical diagnose and histopathology can be seen in table 1. Table 1 showed that in the control group, the most clinical diagnosis was uterine myoma as many as 10 subjects (34.5%). In the case group, the most histopathological type was epithelial ovarian cancer as many as 18 subjects (72%) and germ cells as many as 7 subjects (28%). From table 3, we found eleven early symptoms of women with malignant ovarian neoplasm compared with control (p<0.05), some of the early symptoms were tired/less powerful, stomachache, flatulence, the stomach gets bigger, palpable lump in the abdomen, heartburn, the pelvis

feel heavy/full, hard to breath, low back pain, lower back pain, weight gain. After calculating odds ratios, complaints that had the greatest OR were greater stomach complaints (OR 44.09), then heartburn (OR 10.89), lower back pain (OR 5.78), abdominal pain (OR 4.88), low back pain (OR 4.88), felt a lump in the abdomen (OR 4.04), the pelvis felt heavy / full (OR 3.77), flatulence / fast feeling full (OR 3.48), tired / lacking power (OR 3.16).

Table 1: The Characteristics of Subjects Based on Age and Education.

Characteristics		Case		Control		Total
		n	%	n	%	
Age	10-19 y.o	1	4	0	0	1
	20-29 y.o	7	28	2	6.8	19
	30-39 y.o	4	16	6	20.6	10
	40-49 y.o	4	16	9	31	13
	50-59 y.o	5	20	8	27.6	13
	60-69 y.o	4	16	2	6.8	6
	≥70 y.o	0	0	2	6.8	2
TOTAL		25	100	29	100	54

Educa tion	Elementary	5	20	14	48.4	19
	Junior high	7	28	9	31	16
	High school	9	36	6	20.6	15
	University	4	16	0	0	4
TOTAL		25	100	29	100	54

Table 2: The Characteristics Based On Clinical Diagnosis and Histopathology.

Characteristics		Case		Control		Total
		n	%	n	%	
Clinical Diagnose	Ovarian cancer	25	100	0	0	25
	Susp Ca Cervix	0	0	4	13.8	4
	Susp Ca Vulva	0	0	3	10.3	3
	Vulvo-vaginitis	0	0	7	24.1	7
	Myoma Uterine	0	0	10	34.5	10
	Hydatidiform mole	0	0	1	3.4	1
	Uterine prolapse	0	0	4	13.8	4
TOTAL		25	100	29	100	54

Histo-pathology	Epithelial Ovarian Cancer	18	72	NA	NA	NA
	Malignant Germ Cell Tumor	7	28	NA	NA	NA
TOTAL		25	100	NA	NA	NA

Table 3: Comparison of subjective complaints between ovarian cancer patients and controls.

No.	Subjective complaints	p	OR
1	Tired / less powerful	0.04*	3.16
2	Pain / discomfort in the pelvis	0.81*	1.14
3	Uncomfortable in the stomach	0.36*	1.66
4	Stomach ache	0.00*	4.88
5	Flatulence / quickly feel full	0.02*	3.48
6	The stomach gets bigger	0.00*	44.09
7	Palpable lump in the abdomen	0.01*	4.04
8	Heartburn	0.01**	10.89
9	No appetite	0.85*	1.11
10	Difficult / disturbed defecation	0.12*	2.70
11	Often flatus	0.34**	2.57
12	The pelvis feels heavy / full	0.03*	3.77
13	Hard to breathe	0.00*	NA
14	Difficult urination	1.00**	0.91
15	Frequent urination	0.77*	1.21
16	Painful urination	0.36**	0.26
17	Swollen feet	0.93**	NA

18	Low back pain	0.00*	4.88
19	Lower back pain	0.01*	5.78
20	Weight loss	0.06*	2.90
21	Weight gain	0.01**	NA
22	Discharge from the genitals	0.49*	1.48
23	Pain during intercourse	0.43**	0.42

*Chi square

**Fisher’s exact test

4 DISCUSSION

(Goff, 1998) surveyed 1725 women in Canada, they got 5% of patients reported no symptoms before ovarian cancer diagnosis, 61% reported abdominal / abdominal enhancement, 57% reported flatulence, 47% tired, 36% stomach pain, 31% indigestion, 27% frequent urination, 26% pelvic pain, 25% constipation, 24% urinary incontinence, 23% lower back pain, 17% pain during intercourse, 16% no appetite, 14% palpable lumps in the abdomen, 13% abnormal vaginal bleeding, 11% weight loss, 9% nausea, 3% post-sex bleeding, 1% of leg swelling and 1% diarrhea (Goff, 2000).

(Kennedy, 1981) in their study also found that early symptoms of important ovarian cancer were stomach enlargement, abnormal vaginal bleeding and gastrointestinal symptoms (Kennedy, 2001). Webb PM et al in their study from 811 women in Australia with early-stage, advanced and borderline ovarian cancer gained only 7% of women with early-stage ovarian cancer and 4% of women with advanced, non-symptomatic late-stage ovarian cancer from those with the most symptoms, symptoms are abdominal pain (44%) or abdominal enlargement (39%), symptoms of abdominal lumps (12%) and other gynaecological symptoms (12%) are less common. In women with early-stage ovarian cancer it is more common to report abdominal enlargement symptoms and urinary symptoms and rarely report symptoms of gastrointestinal and or fatigue (malaise) (Webb, 2004).

(Igoe BA, 1997) in his study on the symptoms felt in patients with ovarian cancer in 50 women get the most symptoms are symptoms of gastrointestinal, and then symptoms of menstrual cycle changes (Igoe, 1997).

(Smith L, 2006) in their study in the US with data from 1994-1999 on early symptoms of ovarian cancer found no symptom difference quickly fatigue and symptoms of urinary disorders between patients

with ovarian cancer with control. The most common symptoms of ovarian cancer include abdominal pain (30.6%, OR 6.0), abdominal enlargement (16.5%, OR 30.9), pelvic pain (5.4%, OR 2.3). In a study by Smith LH this control was breast cancer patients (Smith, 2005).

In a study by (Eltabbakh GH, 1999) from 72 women with ovarian tumour borderline and 50 women with ovarian cancer resulted in 80% of patients having symptoms such as abdominal pain and pelvic (34.7%), flatulence (31.9%) and vaginal bleeding (19.4%) (Eltabbakh,, 1999).

5 CONCLUSION

The early symptoms of ovarian cancer patients at Adam Malik General Hospital Medan were statistically significant: tired / less powerful, abdominal pain, flatulence / rapid feeling, full of stomach, palpable lumps in stomach, heartburn, pelvis feel heavy / full, hard breathing, low back pain, weight gain. So that every woman who comes with no specific complaints such as fatigue / less powerful, abdominal pain, flatulence / quickly feel full, bigger stomach, palpable lumps in the stomach, heartburn, pelvis feels heavy / full, hard breathing, low back pain, lower back pain, weight gain, complete physical examination should be performed and should consider the diagnosis of ovarian cancer as one of the differential diagnoses.

REFERENCES

Berek JS, Natarajan S. (2007) ‘Ovarian and Fallopian Tube Cancer’, In: Hill JA, Berek JS, Adashi EY, Hillard PA eds. Novaks Gynecology. 14th edition. Lippincott Williams & Wilkins.

Copeland LJ, Epithelial ovarian cancer. (2007) ‘Clinical gynecologic oncology’, In: DiSaia PJ, Creasman WT, editors. Philadelphia: Mosby Elsevier. p. 313-316.

Eltabbakh GH, Yadav PR, Morgan A. (1999) ‘Clinical Picture of Women with Early Stage Ovarian Cancer’, *Gynecologic Oncology*, 75:476-479.

Flam F, Einhorn N, Sjøvall K. (1988) ‘Symptomatology of

- ovarian cancer', *European Journal of Gynaecology & Reproductive Biology*, 27, pp. 53-57.
- FIGO. Staging classifications and clinical practice guidelines of gynaecological cancers: International Federation of Gynecology and Obstetrics (FIGO), 2000.
- Goff BA, Mandel L, Muntz HG, Melancon CH. (2000) 'Ovarian carcinoma diagnosis', *Cancer*, 89(10), pp. 2068-2075.
- Howlander N, Noone AM, Krapcho M, Neyman N, Aminou R, Altekruse SF, Kosary CL, Ruhl J, Tatalovich Z, Cho H, Mariotto A, Eisner MP, Lewis DR, Chen HS, Feuer EJ, Cronin KA (eds). SEER Cancer Statistics Review, 1975-2009 (Vintage 2009 Populations), National Cancer Institute. Bethesda, MD, http://seer.cancer.gov/csr/1975_2009_pops09/, based on November 2011 SEER data submission, posted to the SEER web site, 2012.
- Igoe BA. (1997) 'Symptoms Attributed to Ovarian Cancer by Women with the Disease', *The Nurse Practitioner*, 22(7), pp. 122-144.
- Indonesian Society of Gynecologic Oncology. National data on gynecologic cancer registration. Available from <http://www.inasgo.com>. Accessed at June 2012.
- Jemal A, Siegel R, Ward E, et al. (2007) 'Cancer statistics', *CA Cancer J Clin*, 57, pp. 43-66
- Kennedy CR, Gordon H. (1981) 'Ovarian cancer: the ten year experience of a district general hospital', *British Journal of Obstetrics and Gynaecology*, pp.1186-91.
- Kirwan JMJ, Tincello DG, Herod JJO, Frost O, Kingston RE. (2002) 'Effect of delays in primary care referral on survival of women with epithelial ovarian cancer: retrospective audit'. *British Medical Journal*, 324, pp.148-151.
- Nelson L, Ekblom A, Gerdin E. (1999) 'Ovarian cancer in young women in Sweden 1989-1991', *Gynecologic Oncology*, 74(3), pp. 472-476.
- Ranney B, Ahmad MI. (1979) 'Early identification, differentiation and treatment of ovarian neoplasia', *International Journal of Gynaecology & Obstetrics*, 17(3), pp. 209-218.
- Smith L. (2006) 'Early clinical detection of ovarian cancer: a review of the evidence'. *Expert Review of Anticancer Therapies*, 6(7), pp.1045-52.
- Smith EM, Anderson B. (1985) 'The Effects of Symptoms and Delay in Seeking Diagnosis on Stage of Disease at Diagnosis Among Women With Cancers of the Ovary', *Cancer*, 56, pp.2727-2732.
- Smith LH, Morris CR, Yasmeeen S, Parikh-Patel A, Cress RD, Romano PS. (2005) 'Ovarian cancer: Can we make the clinical diagnosis earlier?', *Cancer*, 104(7), pp. 1398-407.
- Webb PM, Purdie DM, Grover S, Jordan S, Dick ML, Green AC. (2004) 'Symptoms and diagnosis of borderline, early and advanced epithelial ovarian cancer'. *Gynecol Oncol*, 92(1), pp. 232-239.
- Wikborn C, Pettersson F, Silfversward C, Moberg PJ. (1993) 'Symptoms and diagnostic difficulties in ovarian epithelial cancer', *International Journal of Gynaecology & Obstetrics*, 42(3), pp. 261-264.