

Gynecologic cancer and surgical infectious morbidity

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Summary

The purpose of this study was to evaluate retrospectively the surgical infectious morbidity in gynecologic cancer. We examined 1,180 gynecologic oncology patients: 608 women had carcinoma of the endometrium, 510 cancer of the cervix, 48 ovarian cancer and 14 vulvar cancer. Thirty-five (6%), 92 (18%), 7 (15%) and 2 (14%) were complicated by infection in carcinoma of the endometrium, cancer of the cervix, ovarian cancer and vulvar cancer, respectively. Our conclusion is that the highest surgical infectious morbidity occurs in patients with cervical cancer and the lowest in patients with carcinoma of the endometrium.

Introduction

Infectious morbidity should be carefully evaluated in every department. Pelvic infection should always be suspected when a patient has a fever, usually between the third and tenth postoperative days which is not readily explainable by wound, chest or urinary infection [1].

Large gynecologic tumors are many times necrotic and infected with aerobic and anaerobic organisms, and prophylactic antibiotic therapy may be desirable and effective in some cases [2].

The purpose of this study was to evaluate retrospectively surgical infectious morbidity in gynecologic cancer.

Methods

We examined retrospectively 1,180 gynecologic oncology patients: 608 women had carcinoma of the endometrium, 510 cancer of the cervix, 48 ovarian cancer and 14 vulvar cancer. In Table 1 we can see the distribution of ages.

Table 1. — *Gynecologic oncology patients according to age*

AGE	CANCER				Total
	Endometrium	Cervix	Ovary	Vulva	
21-25	0	2	0	0	2
26-30	0	13	0	0	13
31-35	8	15	4	0	27
36-40	16	17	5	0	38
41-45	13	76	6	0	95
46-50	16	164	9	0	189
51-55	34	143	10	0	187
56-60	61	67	7	2	137
61-65	189	13	7	4	213
66-70	202	0	0	5	207
71-75	69	0	0	3	72
Total	608	510	48	14	1,180

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Results

Surgical infectious morbidity in all patients was as follows:

Vulvar cancer: 2 cases were complicated by infection (14.3%).

Cancer of the cervix: 92 cases were complicated by infection (18.0%).

Carcinoma of the endometrium: 35 cases were complicated by infection (5.8%).

Ovarian cancer: 7 cases were complicated by infection (14.6%).

Age was not a contributory factor. The difference between the groups of patients concerning surgical infectious morbidity is highly significant (chi-square = 41.609, $p < 0.0001$).

Discussion

Microbial infections have always been a danger in surgery. In major surgical procedures, the prophylactic administration of a broad - spectrum bactericidal drug, from just before until one day after the procedure, has been found effective. The same reasoning stands for hysterectomies [3] and other major surgical procedures for gynecologic cancer. In the past decade modern, perioperative short-term antibiotic-prophylaxis has been widely accepted in certain gynecological operations and many studies have demonstrated the clinical effectiveness in reducing surgical infectious morbidity [4].

Age, probably, is not a contributory factor [5].

In our study, the difference between the groups of patients concerning surgical infectious morbidity was highly significant, which means that the kind of gynecologic cancer is related with postoperative morbidity.

The conclusion of our trial is that the highest surgical infectious morbidity occurs in patients with cervical cancer and the lowest in patients with carcinoma of the endometrium. A possible explanation for this finding is the direct contamination of the cervix with the vaginal

flora [6]. The need for perioperative antibiotic prophylaxis according to the kind of gynecologic cancer is obvious.

References

- [1] Shaw W.: "Postoperative Treatment and Complications". In: "Textbook of Operative Gynaecology". 5th edition, 1983, p. 60.
- [2] Barklay D. L.: "Premalignant & Malignant Disorders of the Vulva & Vagina". In: "Current Obstetric & Gynecologic Diagnosis & Treatment.", Pernoll M. L., Benson R. C., 6th edition. California, 1987, p. 848.
- [3] Roberts J. M., Homesley H. D.: "Low-dose carbenicillin prophylaxis for vaginal and abdominal hysterectomy". *Obstet. Gynaecol.*, 1978, 52, 83.
- [4] Gerstner G. J.: "Preventive use of antibiotics in obstetric-gynecologic operations". *Zentralbl. Gynakol.*, 1988, 110, 1218.
- [5] Meguid M. M., Debonis D., Meguid V., Hill L. R., Terz J. J.: "Complications of abdominal operations for malignant disease". *Am. J. Surg.*, 1988, 156, 341.
- [6] Hill G. B., Eschenbach D. A., Holmes K. K.: "Bacteriology of the vagina". *Scand. J. Urol. Nephrol.*, 1985, 89, 23.

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