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Cyclic Hormonal Treatment in Ovarian Cancer. A Phase-II Trial

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Abstract—*Twenty-nine patients with advanced epithelial ovarian cancer were included in a phase-II trial of cyclic hormonal treatment. The schedule consisted of tamoxifen* 10 mg × 3 *daily for* 14 *days followed by medroxyprogesterone acetate* 400 mg × 2 *daily for* 14 *days. No objective response was recorded in* 17 *evaluable patients and cyclic hormonal treatment appears to be ineffective in advanced ovarian cancer.*

INTRODUCTION

BOTH antioestrogen and gestagen have been used in the treatment of ovarian cancer, but with inconsistent results in different studies [1–4]. However, the response rates appear to be rather low. Cyclic hormonal treatment seems attractive from a theoretical point of view and increased response rates have been reported on breast cancer by use of such treatment [5].

The present study represents a phase-II trial of cyclic hormonal treatment in advanced epithelial ovarian cancer.

MATERIALS AND METHODS

Following informed consent 29 patients with epithelial ovarian cancer entered the study. Most of the patients (26) had previously been treated with regimens consisting of cyclophosphamide, *cis*-platinum and doxorubicin (20 patients) or the same combination without doxorubicin (6 patients). Eight patients had also received radiotherapy whereas 3 patients were previously untreated except for surgery. All patients had measurable/evaluable disease. Different patient characteristics are given in Table 1.

Therapy

The treatment started with tamoxifen 10 mg × 3 daily for 14 days followed by medroxyprogesterone acetate 400 mg × 2 daily for the next 14 days. This schedule continued until progression.

Table 1. Patient characteristics

	Stage at time of diagnosis			
	I	II	III	IV
Histopathology				
Serous carcinoma	1	3	3	3
Mucinous carcinoma	1	1	2	1
Endometrioid carcinoma			3	1
Clear cell carcinoma		1	2	
Undifferentiated carcinoma	1		2	1
Age (median)	54	64	63	68
Performance score (at protocol entrance)				
0	1	1	4	0
1	1	2	5	1
2	1	1	2	4
3		1	1	1

Response

The response was assessed after 2 months of treatment according to WHO criteria. The time to progression and the survival were measured from the start of treatment.

RESULTS

Three patients were excluded from the study because of major protocol violation leaving 26 patients for evaluation of the treatment. The side-effects were negligible and not the reason for the stopping of treatment in any case. Nine patients progressed before 2 months and consequently 17 patients were evaluable. No objective response appeared, 7 patients were unchanged and in 10 patients there was progression of the disease.

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DISCUSSION

A number of studies from recent years have indicated tamoxifen to be active in epithelial ovarian cancer. Pagel *et al.* reported [6] in 36% response rate in heavily pretreated patients. These results have not been confirmed by other investigators and Slevin *et al.* [2] found no objective response in 22 stage II and IV patients. Similar results have been reported by Shirley *et al.* [7].

The use of gestagen has also given contradictory results with response rates ranging from 0 to 65% [8].

Epithelial malignant ovarian tumors contain steroid receptors at a considerable frequency [9] and the fact that antioestrogen increases the synthesis of gestagen receptors [10] seems to provide a rational basis for cyclic hormonal manipulations. However, the results of the present study indicate that this is of minor clinical importance in ovarian cancer, at least in the used schedule.

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