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PHASE II CLINICAL STUDY OF TOREMIFENE IN PATIENTS WITH METASTATIC BREAST CANCER. PRELIMINARY COMMUNICATION

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Summary—Twelve postmenopausal women with inoperable or metastatic breast cancer were given toremifene at a daily dose of 60 mg. The patients had no prior endocrine or cytotoxic therapy and further inclusion criteria were bidimensionally measurable disease, performance status above 50, expected survival of more than 3 months and estrogen receptor status positive or undetermined. Objective response [complete remission (CR) + partial remission (PR)] was achieved in 6 patients (50%) and stable disease was obtained in 5 patients. No side effects of the treatment were noted.

INTRODUCTION

Toremifene has shown a marked antitumor activity in several experimental animal tumor models [1] and low toxicity in clinical phase I studies [2]. In August 1985 a clinical phase II study was started in Sweden in order to evaluate toxicity and clinical response of toremifene treatment in women with inoperable or recurrent breast cancer. Our preliminary experience from the first twelve evaluable patients is presented in this report.

PATIENTS AND METHODS

Postmenopausal women with histologically verified inoperable or recurrent mammary cancer were included in the study. The patients had no prior endocrine or cytotoxic treatment or they had terminated adjuvant tamoxifen therapy at least 6 months before entering the study. Eligibility requirements were bidimensionally measurable disease, performance status of more than 50 on the Karnofsky scale, estimated survival time of more than 3 months and positive or undetermined estrogen receptor status. The patient characteristics are shown in Table 1.

On entry clinical examination was performed and all tumor sites assessed. The patients were then followed at 6-week intervals. Laboratory tests at entry and follow up included ESR, Hb, WBC, platelets, electrolytes, creatinine, ASAT, ALP and GT. Chest X-ray and bone scan was performed when necessary. UICC response criteria were used.

Table 1. Patient characteristics

Total patients entered	12
Evaluable	12
Median age in years (range)	70 (56–86)
Median performance status (range)	80 (50–100)
Sites of metastatic disease	
Soft tissue	4
Lymph node	9
Lung	5
Bone	3
Estrogen receptor status	
Positive	6
Undetermined	6

The patients were given toremifene at a daily dose of 60 mg per os. Treatment was continued until serious side effects were noted or until progression of the disease.

RESULTS AND DISCUSSION

Treatment results are presented in Table 2. An objective response of 50% was obtained in agreement with other phase II studies with toremifene [3, 4]. The responding patients all had soft tissue or node involvement but one of the CR patients also had a bone lesion which healed completely when estimated by X-ray and one of the PR patients had multiple

Table 2. Clinical response and duration of toremifene treatment in months

CR	3/12	5+, 10+, 10+
PR	3/12	3+, 7+, 9+
NC	5/12	2*, 4[b], 6, 6+, 9+
PD	1/12	2

*Soft tissue tumor operated after 2 months according to the wish of the patient.
[b]Stable disease for 3 months, then progression.
CR: Complete Remission; PR: Partial Remission; NC: No Change; PD: Progressive Disease.

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pulmonary metastases which showed a marked regression upon treatment.

No effect of the treatment on hematological status, liver or renal function was noted. No subjective side effects were experienced by the patients.

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