PERGAMON

European Journal of Cancer 38 Supplement 6 (2002) S73

European Journal of Cancer

www.ejconline.com

No rules without exception: a long-term complete remission observed in a study using a LH-RH agonist in platinum-refractory ovarian cancer

L. Paskeviciute*, H. Roed, A. Engelholm

Department of Oncology, The Finsen Center, Copenhagen University Hospital, Blegdamsvej 9, DK-2100 Copenhagen, Denmark

80% of all ovarian carcinomas are diagnosed in postmenopausal women. Because of the close relationship between an increase in the incidence of ovarian malignancies and rise in serum gonadotropin concentrations it has been suggested that gonadotropins are involved in the development of ovarian tumours [1]. Interestingly, numerous receptor studies have indicated that luteinising hormone-releasing hormone (LH-RH) agonists and antagonists directly inhibit proliferation of ovarian cancer by blocking receptors, which were found in nearly 80% of human ovarian cancers [2,3].

At the Finsen Center, treatment with the LH-RH agonist leuprorelin has been used as second-line relapse treatment for patients with platinum-refractory recurrent epithelial ovarian cancer since 1994, and this retrospective study was performed to evaluate the treatment results.

Table 1
Patient characteristics ($n = 32$)

Age (years): median (range)	55 (32–77)
FIGO stage	
III	28
IV	4
Histological type	
Serous	25
Mucinous	2
Endometrioid	4
Unspecified	1
Patients with symptoms	22
Patients without clinical symptons	10
Number of prior therapies median (range)	2 (2–5)
Treatment-free interval after last chemotherapy	
No interval	12
<3 months	9
>3 months	11
Site disease	
Pelvis/peritoneal/retroperitoneum	25
Liver parenchyma/lung	7

FIGO, International Federation of Gynecology and Obstetrics

Table 2
Disease response

	n	%	Duration (months)
Complete response	1	3	37
Partial response	2	6	3,4
No change	4	12	4,5,7,12
Progressive disease	25	78	

Characteristics of the patient population are shown in Table 1. Disease response is presented in Table 2. No receptor status analysis was performed.

This study showed that the LH-RH agonist leuprorelin has a modest efficacy in patients pre-treated with platinum-containing chemotherapy. However, this very tolerable treatment did lead to one long-lasting complete remission as well as stable disease or partial responses in a subset of patients in a patient population beyond therapeutic reach as far as chemotherapy or surgery was concerned. Future investigations will need to determine whether cytotoxic LH-RH analogues could be used to treat selected groups of patients with advanced epithelial carcinomas that express LH-RH receptors [4].

References

1. Emons G, Schally AV. The use of luteinizing hormone releazing hormone agonists and antagonists in gynecological cancers. *Hum Reprod* 1994, **9**, 176–194.
2. Imai A, Ohno T, Iida K, Fuseya T, Furui T, Tamaya T. Gonadotropin-releasing hormone receptor in gynecologic tumors. *Cancer* 1994, **74**, 2555–2561.
3. Simons WE, Albrecht M, Hansel M, Dietl M, Holzel F. Cell line derived from human ovarian carcinomas: growth stimulation by gonadotropic and steroid hormones. *J Natl Cancer Inst* 1983, **70**, 839–845.
4. Miyazaki M, Schally AV, Nagy A, *et al*. Targeted cytotoxic analog of luteinizing hormone-releasing hormone AN-207 inhibits growth of OV-1063 human epithelial ovarian cancers in nude mice. *Am J Obstet Gynecol* 1999, **180**, 1095–1103.

* Corresponding author at: Ligita Paskeviciute, Sankt Peders Straede 10, 2 tv. DK-1453 Copenhagen, Denmark. Tel.: +45-22-722972.
E-mail address: ligitapask@dadlnet.dk (L. Paskeviciute).

0959-8049/02/$ - see front matter
PII: S0959-8049(02)00295-2