

RELATIVE DOSE INTENSITY(RDI) IN PATIENTS WITH ADVANCED CANCER RECEIVING PACLITAXEL COMBINED WITH CARBOPLATIN AND PRIMARY EMPEGFILGRASTIM PROPHYLAXIS

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Introduction

Paclitaxel combined with carboplatin (PC) is considered the standard chemotherapy regimen for several advanced tumors and usually does not require primary prevention of febrile neutropenia (FN). Therefore, there is a need to understand the prevalence of FN risk factors and RDI values in patients with different tumors who receive PC. Here we present the results of a multicenter prospective observational cohort study of safety and efficacy of prolonged G-CSF drug, empegfilgrastim (JSC BIOCAD), in pts with solid tumors who receive cytotoxic therapy (NCT04811443).

FN risk factors, NCCN	OC, n= 50	LC, n = 45	EC, n = 22	CC, n = 22	OT, n = 28
Persistent neutropenia, n (%)	13 (26%)	3 (7%)	0 (0%)	3 (14%)	3 (11%)
Age >65 years, n (%)	22 (44%)	13 (29%)	9 (41%)	6 (27%)	8 (29%)
Open wounds, n (%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Radiation therapy, n (%)	1 (2%)	7 (16%)	13 (59%)	14 (64%)	7 (25%)
Bone marrow involvement, n (%)	1 (2%)	0 (0%)	0 (0%)	1 (4,5%)	0 (0%)
Recent surgery, n (%)	3 (6%)	0 (0%)	1 (4,5%)	1 (4,5%)	0 (0%)
Liver or renal dysfunction, n (%)	6 (12%)	0 (0%)	1 (4,5%)	0 (0%)	0 (0%)

Table 1. Proportion of patients with FN risk factors

Methods

A total of 167 patients with different advanced tumors (ovarian cancer (OC), n=50; lung cancer (LC), n=45; endometrial cancer (EC), n=22; cervical cancer(CC), n=22; other tumors (OT), n=28) who received PC were included in this analysis. The median age was 61 years with a range of 54 to 67 years. Most of the patients were women (119/167 (71%)). Proportions of patients with different FN risk factors, mean RDI and proportion of patients with RDI ≥ 85% by localizations were estimated. Proportion of patients with RDI >= 85% was compared between groups with and without a risk factor using a chi-squared test.

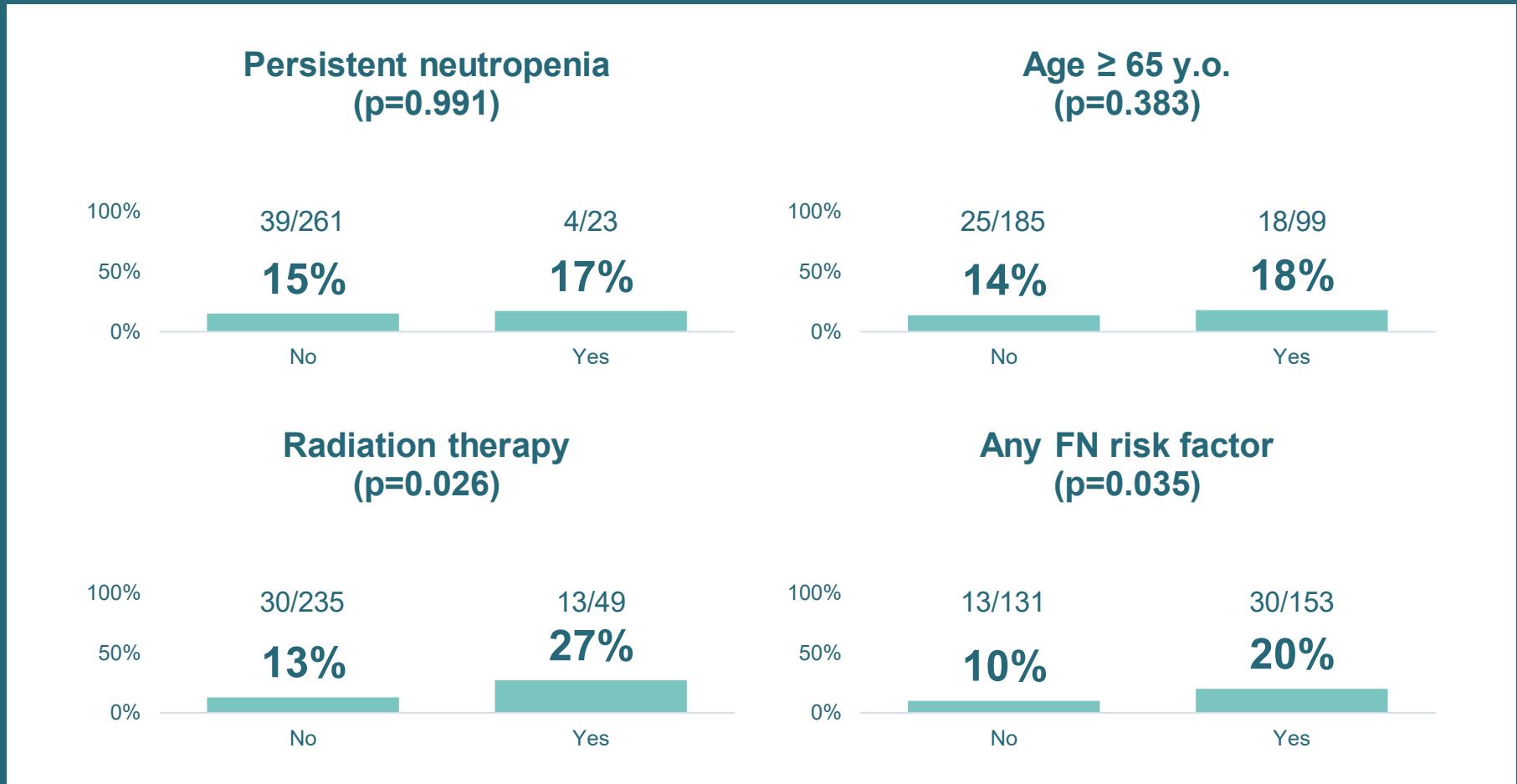


Figure 2. Proportion of patients with RDI < 85% by FN risk factors

The authors declare that they have no competing interests.

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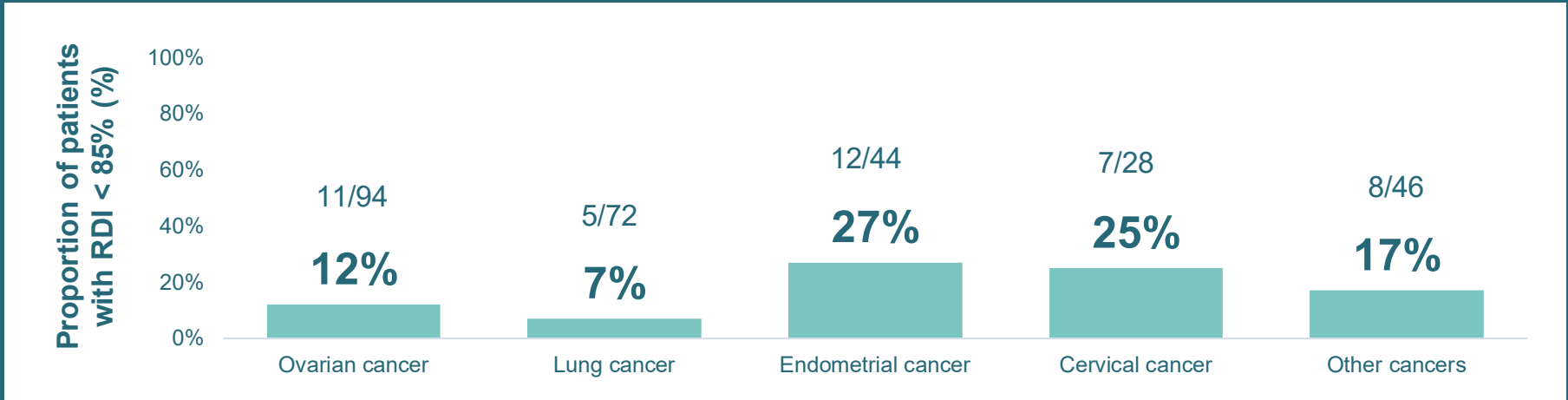


Figure 1. Proportion of patients with RDI < 85 %

Results

Mean (SD) RDI for pts with OC/LC/EC/CC/OT was 95% (14), 96% (11), 87% (28), 92% (15), 95% (19), resp. RDI < 85% was in 12%, 7%, 27%, 25%, 17% pts with OC/LC/EC/CC/OT, resp. (Fig 1). Most of pts with EC (59%) and CC (64%) had prior radiation therapy, high proportion of pts in EC (41%) and OC (44%) were aged 65+ (Table 1). Proportion of patients with advanced stages of tumors treated with carboplatin + paclitaxel who had RDI < 85% was significantly higher among patients with previous radiation therapy (p = 0.026) and any FN risk factor (p=0,005)(Fig 2)

Conclusions

Among advanced cancer patients with CP therapy and primary prophylaxis with empegfilgrastim endometrial cancer is associated with lowest mean RDI and lowest proportion of patients with RDI ≥ 85%. Further research is needed to estimate the association between FN risk factors and RDI in these patients.