

DOES AGE REALLY MATTER ON PREVALENCE OF DRUG-DRUG INTERACTIONS WITH ENDOVENOUS CHEMOTHERAPY?

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BACKGROUND AND IMPORTANCE

Cancer patients receive multiple medications exposing to an elevated risk of drug-drug interactions (DDI). Moreover DDIs represent an escalating concern for older adults. Screening of DDI is not generally performed with endovenous chemotherapy.

AIM AND OBJECTIVES

The aim of this study was to evaluate the influence of elderly on DDI while endovenous chemotherapy (EVC) treatment.

MATERIAL AND METHODS

Retrospective study performed in a tertiary-hospital. Patients who initiated EVC during 2019 were included. All DDI were screened and categorized. Data collected: demographic, cancer by site, chemotherapy treatment, concomitant drugs. DDI in patients ≥ 70 and < 70 years old were analyzed. Continuous data expressed as mean (CI95%) and qualitative data as percentages. U-Mann Whitney for continuous variables and the Chi-square for qualitative data were used.

RESULTS

A total of 679 patients were included, which 65 (9.6%) presented 127 DDI (median of 1.95 interactions/patient). Differences between groups shown in Table 1.

Table 1

	< 70 y.o. (n=36)	≥ 70 y.o. (n=29)	p	
Gender (female)	25 (69.4)	17 (58.6)	0.438	
Age (years)	59.97 (57.1-62.9)	76.20 (74.5-77.9)	<0.0000	
Cancer by site	Breast	16 (44.4)	11 (37.9)	0.623
	Gynecological	3 (8.3)	5 (17.2)	0.450
	Gastrointestinal	4 (11.1)	7 (24.1)	0.196
	Lung	9 (25.0)	6 (20.7)	0.772
	Other	4 (11.1)	0	0.122
Number of drugs	7.194 (5.6-8.8)	7.759 (6.6-	0.249	
Number of DDI	1.778 (1.5-2.1)	2.241 (1.8-2.7)	0.058	
Number of chemo drugs	2.444 (2.1-2.8)	2.207 (1.9-2.5)	0.441	
Category B: no action required	1 (2.8)	2 (6.9)	0.582	
Category C: monitor therapy	27 (75.0)	26 (89.7)	0.200	
Category D: consider therapy modification	8 (22.2)	1 (3.4)	0.036	

Most implicated chemotherapy drug was paclitxel (104, 81.9%), interacting mainly with antihypertensive agents, enhancing blood-pressure lowering effect.

From all category D DDI, 6 resulted in the increase of chemotherapy concentrations, potentially increasing toxicity, 2 decreasing chemotherapy concentrations and one brought higher anticoagulant drug concentrations.

CONCLUSION AND RELEVANCE

Older patients presented a higher number of DDI although those seemed to be less severe DDI than in younger patients.

Future studies need to identify the relevant DDIs with clinical implications to optimize medication safety in older adults.