

TOLERANCE PROFILE OF PLATINUM SALTS IN ANTICANCER CHEMOTHERAPY: A PROSPECTIVE STUDY

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Introduction

Cisplatin, Carboplatin and Oxaliplatin are three major platinum salts used for intravenous chemotherapy. They are the basis of many chemotherapy protocols for different cancers, and their mechanism of action is the formation of bridges between DNA chains. However, their efficacy is accompanied by different toxicities.

Purpose: The aim of our study is to identify adverse drug reactions of platinum salts.

Patients and methods

- Type:** prospective descriptive study
- Place:** National Institute of Oncology Rabat
- Duration:** March 2014 and September 2015 (18 months)
- Collection method:** Notification form for adverse drug reactions.
- Statistical Analysis:** Descriptive Analysis with SPSS 13.0 Software
quantitative variables: average.
qualitative variables: percentage.

Results

Sociodemographic data

Nombre of patient	Average age	Sex ratio
70	52	0.41

Table 1: Sociodemographic data of patients

Cancer localization

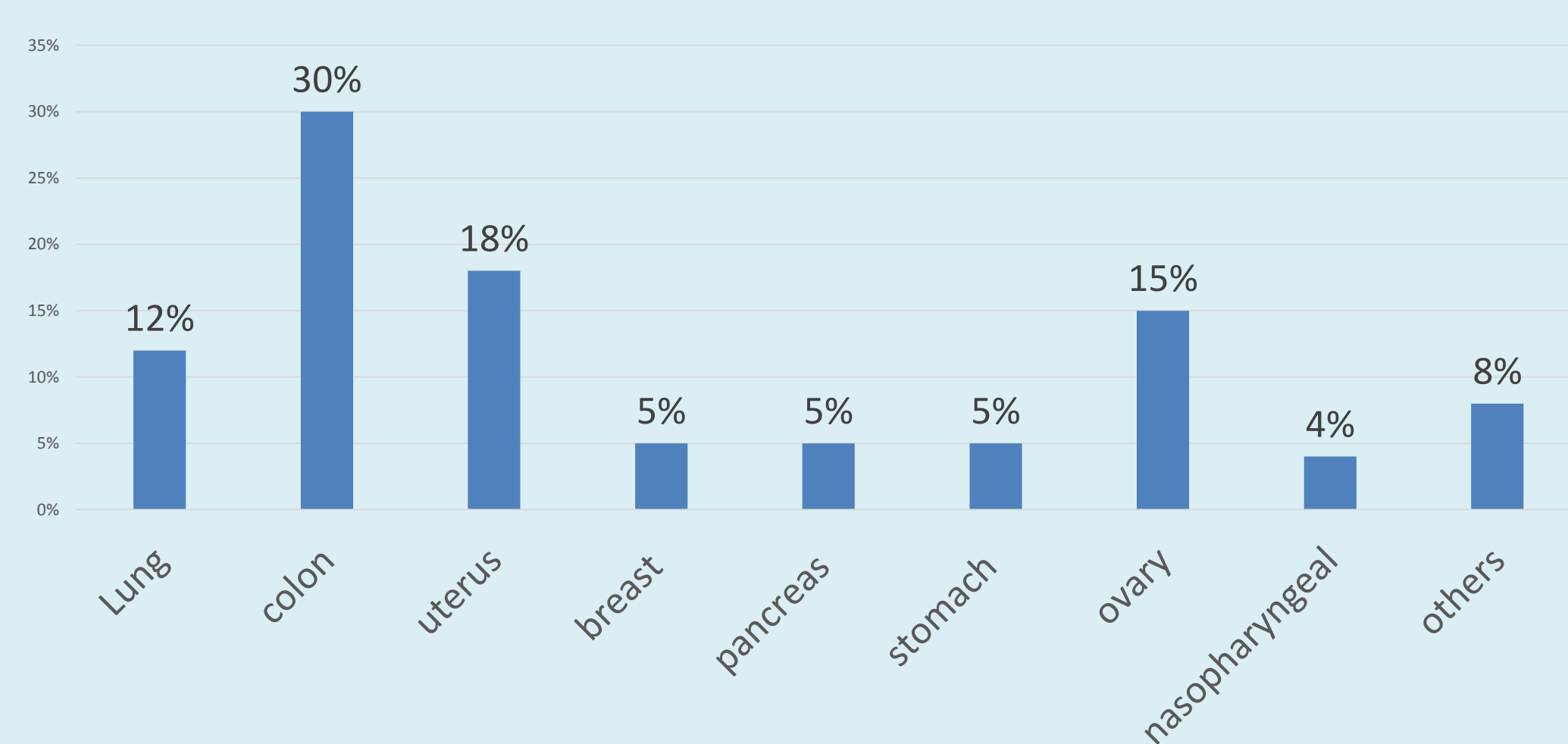


Figure 1: Different localization cancer

Distribution of platinum salts

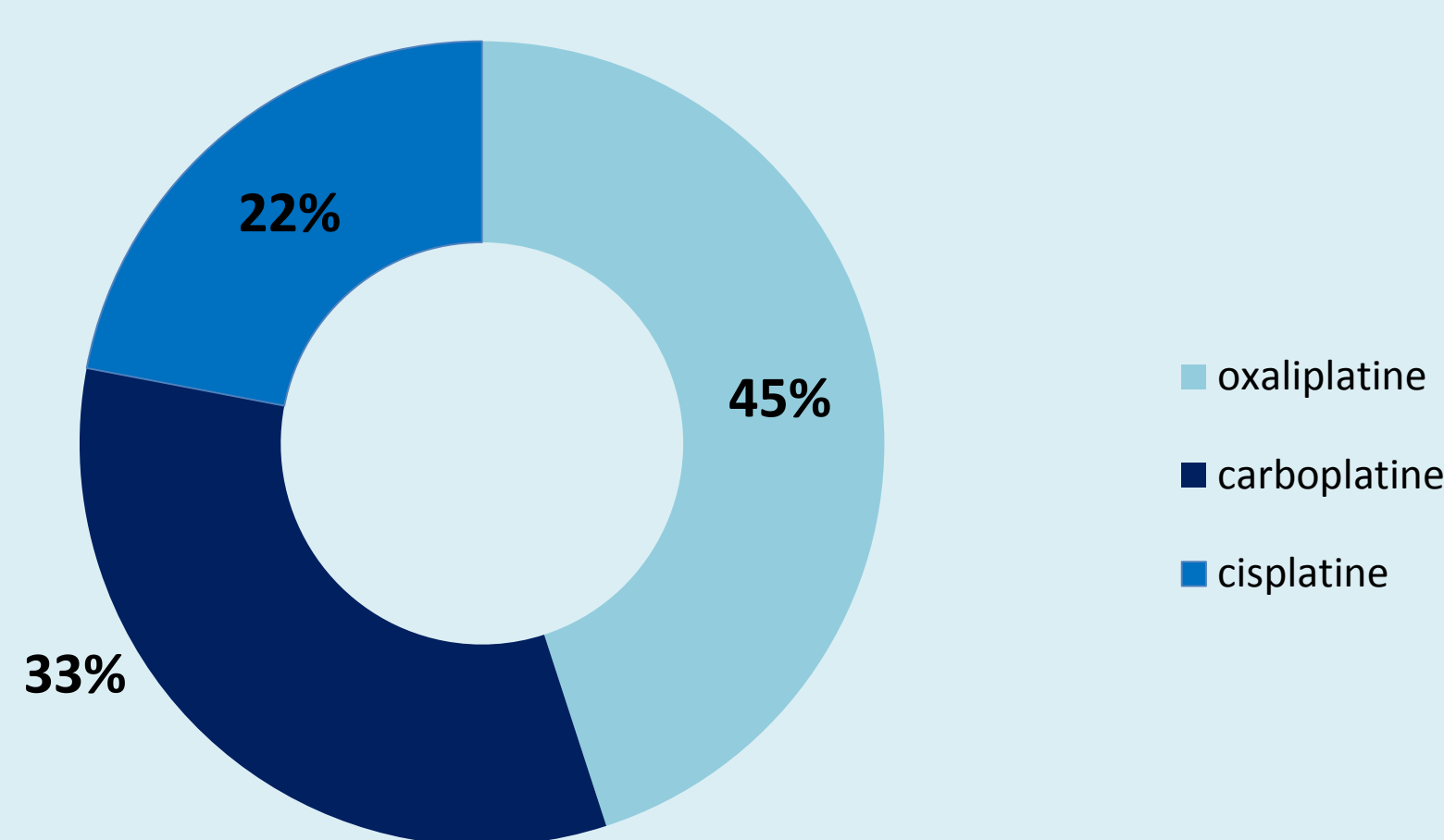


Figure 2: distribution of platinum salts

Toxicities related to platinum salts

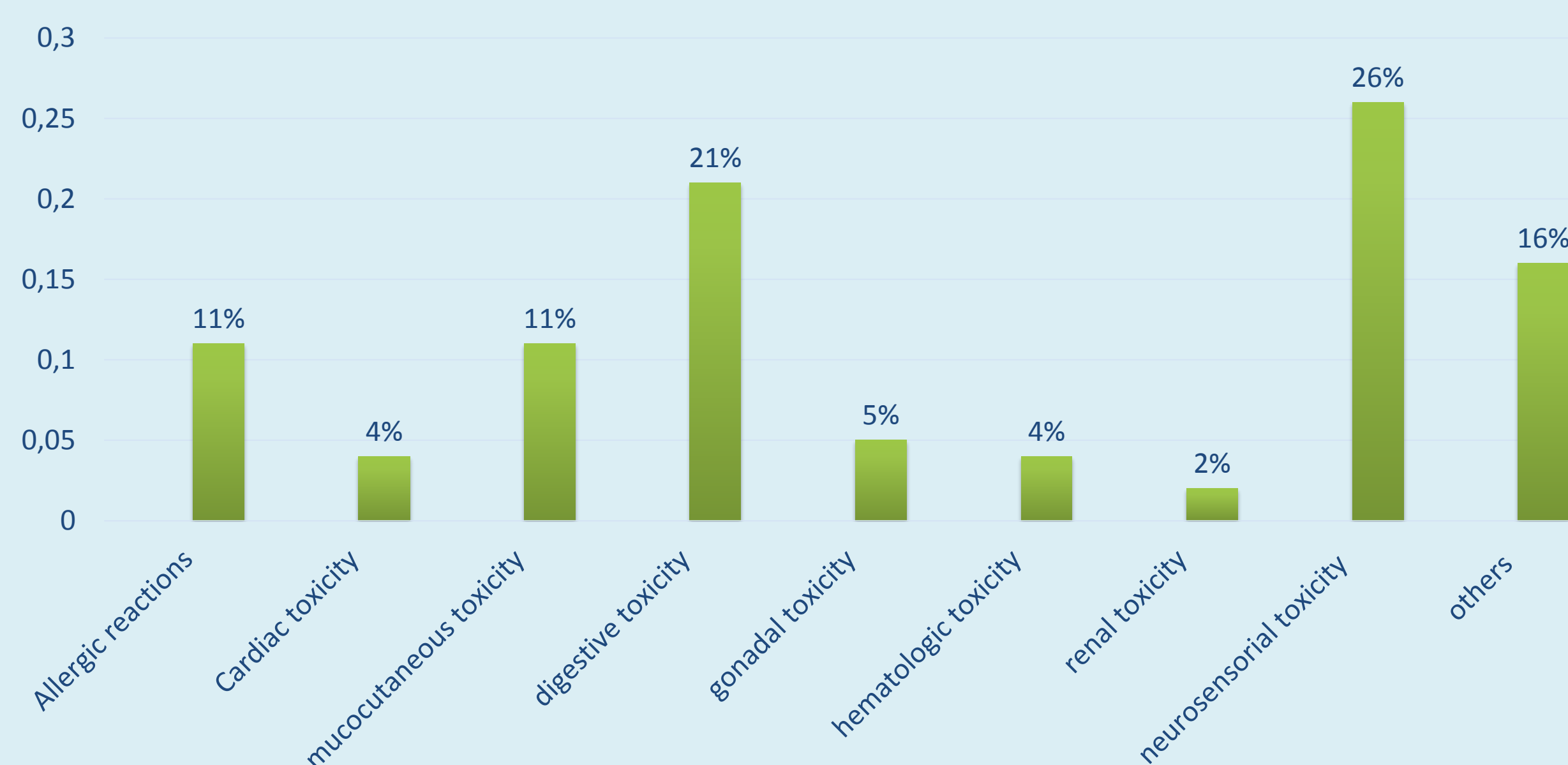
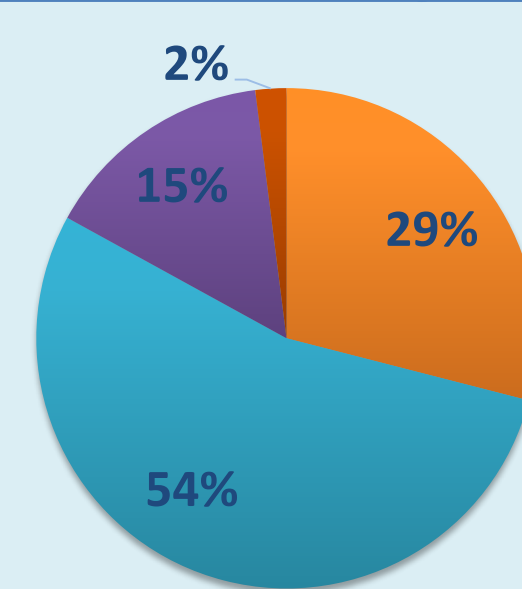


Figure 3: Different toxicities related to platinum salts

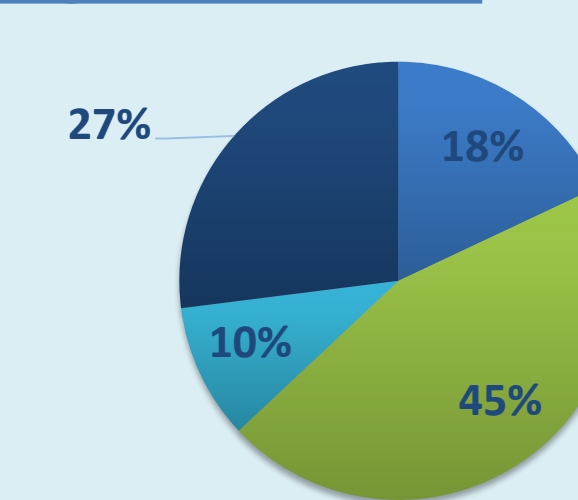
Neurosensory toxicity:



swarming laryngospasm paresthesia loss of taste

Figure 4: Distribution of different neurosensory toxicities

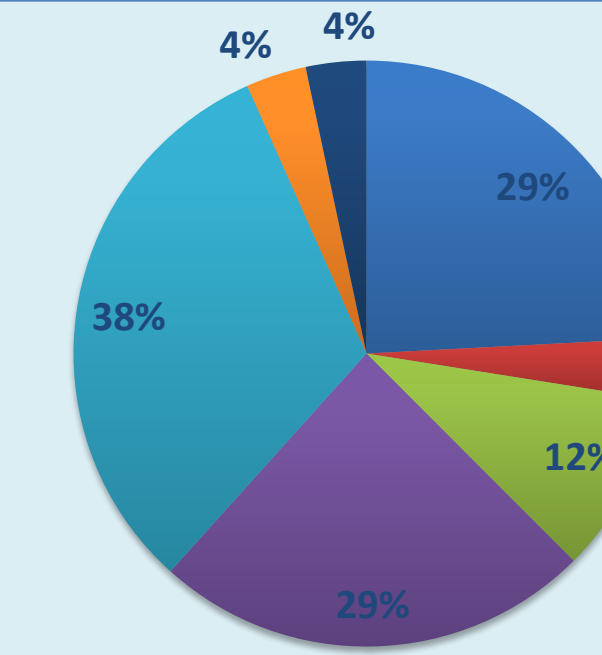
Allergic reactions



pruritus redness urticaria immediate shock

Figure 7: Distribution of different allergic reaction

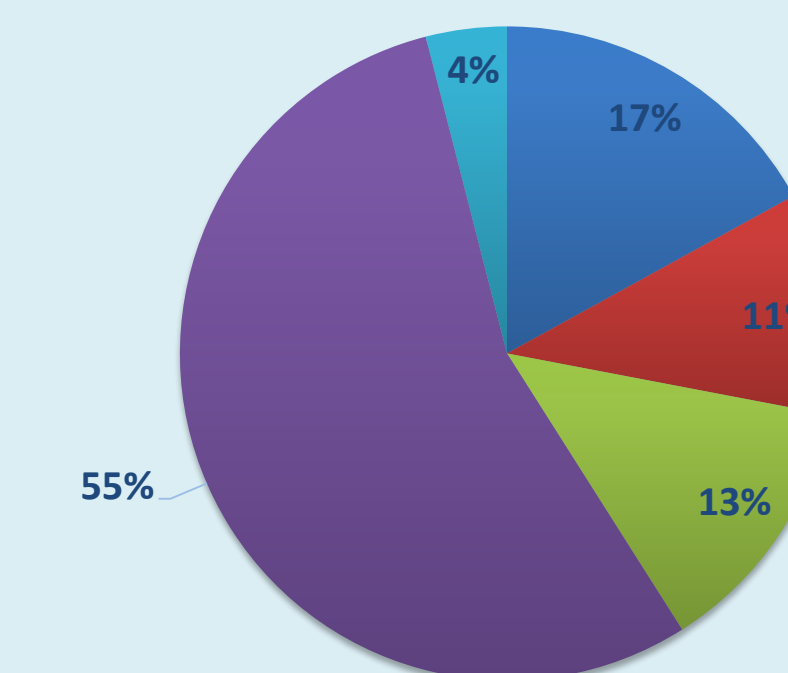
Mucocutaneous toxicity



alopecia skin rash mucositis Erythema browning of skin fragility of the nails swarming of extremities

Figure 6: Distribution of different mucocutaneous toxicities

Digestive toxicity



constipation abdominal pain diarrhea nausea / vomiting thrust of hemorrhoids

Figure 5: Distribution of different digestive toxicities

Toxicity	Adverse Drug Effect	Platinum salt	Effectif	Fresh method	
				Intrinsic Score	Extrinsic Score
Mucocutaneous toxicity	Urticaria / erythema	Oxaliplatin	1	I2	B4
		Cisplatin	1	I1	B2
		Carboplatin	3	I2	B4
	Pruritus	Carboplatin	1	I2	B4
		Carboplatin	1	I2	B4
		Oxaliplatin	1	I2	B4
Coloring / fragility of the nails	Cisplatin	1	I2	B4	
	Oxaliplatin	1	I2	B1	
	Oxaliplatin	1	I2	B1	
Alopecia	Carboplatin	2	I2	B4	
	Cisplatin	3	I2	B4	
	Oxaliplatin	1	I6	B3	
Digestive toxicity	Browning of skin	Oxaliplatin	1	I6	B3
		Oxaliplatin	1	I2	B4
		Oxaliplatin	1	I3	B3
	Paresthesia / swarming of extremities	Carboplatin	3	I2	B4
		Carboplatin	3	I2	B4
		Cisplatin	4	I2	B4
Nausea and vomiting	Cisplatin	1	I6	B4	
	Oxaliplatin	1	I2	B4	
	Oxaliplatin	1	I2	B4	
Otototoxicity	Tinnitus	Oxaliplatin	1	I2	B1
		Cisplatin	3	I2	B4
		Cisplatin	1	I3	B4
Hematologic toxicity	Anemia	Carboplatin	1	I2	B3
		Oxaliplatin	1	I3	B4
		Cisplatin	2	I3	B4
Gynecological toxicity	Amenorrhea	Carboplatin	1	I3	B4
		Carboplatin	1	I2	B2
		Cisplatin	2	I2	B2
vaginitis	Cisplatin	1	I1	B1	
		1	I2	B1	

Table 2: imputability study of important side effects.

Conclusion

The imputability study shows that the majority of adverse effects are described in the literature.

For better management of patients treated with platinum salts, it is essential to evaluate their clinical status and tolerance profile for each treatment to avoid the complications that may occur.

Références

1. Androulakis N, Aravantinos G, Syrigos K, Polyzos A, Ziras N, Tselepatiotis E, Samonis G, Kentepozidis N, Giassas S, Vamvakas L, Georgoulas V. Oxaliplatin as first-line treatment in inoperable biliary tract carcinoma: a multicenter phase II study. *Oncology* 2006;70(4):280-284.
2. Pagani M. The complex clinical picture of presumably allergic side effects to cytostatic drugs: symptoms, pathomechanism, reexposure, and desensitization. *Med Clin North Am* 2010;94(4):835-852.