

NON-Cirrhotic Portal Hypertension Secondary to Oxaliplatin Therapy: Incidence and Presentation

Dr. Stefania Gioia¹, Dr. Silvia Nardelli¹, Dr. Michele Di Martino² and Prof. Oliviero Riggio¹, (1)Clinical Medicine, Sapienza University of Rome, (2)Radiological, Oncological and Anatomo-Pathological Sciences, Sapienza University of Rome

Abstract Text

Background: Recently, several studies have identified a possible relationship between the therapy with oxaliplatin and the development of non-cirrhotic portal hypertension. However, the incidence and the way of presentation of the disease in series of patients treated with oxaliplatin have not been yet described. The aim of the study is to search for the development of radiological signs of portal hypertension (PH) in a series of patients submitted to therapy with oxaliplatin.

Methods: From a total of 570 neoplastic patients consecutively observed, based on stringent selection criteria aimed at the elimination of all patients with active or potential portal hypertension, 143 patients undergoing oxaliplatin therapy and with a computed tomography (CT) performed prior to treatment were finally included in the study. Changes in portal vein and spleen diameters, the appearance of oesophago-gastric varices and of other collaterals at the CT performed after at least 3 months from the therapy have been evaluated by an experienced radiologist. Portal hypertension was defined by the contemporaneous presence of portal vein diameter >15 mm and longitudinal spleen diameter >12 cm or by the presence of esophagogastric varices and/or portosystemic shunts.

Results:

118 patients were affected by colorectal cancer, 25 were affected by a other gastrointestinal neoplasia for which they underwent to neoadjuvant (18) or adjuvant (125) chemotherapy. The most used therapeutic regimens were XELOX and FOLFOX. Before the chemotherapy no one of the 143 patients had portal hypertension. After 7.5 ± 3.1 months from the therapy, 7 patients (4.9%) developed radiological signs of portal hypertension. In particular, all of the 7 patients showed portal vein diameter >15mm and splenomegaly, one patient of them developed oesophageal varices (0.7%) and another one developed oesophago-gastric varices (0.7%) and ascites.

Conclusion: Liver vascular damage causing the development of portal hypertension is common in the patients undergoing oxaliplatin-based chemotherapy regimens. Thus, this side effect should be always considered by submitting this kind of patients to specific controls to early recognize its onset.

Table. Result of the comparison between the CT scans performed before and after the therapy with oxaliplatin

	Before Oxaliplatin (143 patients)	After Oxaliplatin (143 patients)	P value
Portal vein diameter (mm)	12.5 (12,13)	12.9 (12.6, 12.3)	0.08
Longitudinal diameter of the spleen (cm)	10.3 (10, 10.6)	10.9 (10.5, 11.4)	0.001
Spleen volume (cm ³) °	25.9 (22.6,29.1)	29.8 (28.2,32.2)	0.001
n (%) of pts with portal dilatation* and splenomegaly**	0	7 (4.9%)(CI 95%1.4-8)	
- oesophago/gastric varices		2 (1.4%)	
- ascites		1 (0.7%)	
- paraumbelical vein recanalization		0	
- spleno-renal shunt		0	

Median (range);

°spleen volume normal values= 21.5 ± 6 cm³

*portal vein dilatation= portal vein diameter >15 mm

**splenomegaly= longitudinal spleen diameter >12 cm

Disclosures

The following people have nothing to disclose: Stefania Gioia

Disclosure information not available at the time of publication: Silvia Nardelli, Michele Di Martino, Oliviero Riggio