Chemosaturation therapy with percutaneous hepatic perfusion (CS-PHP) for unresectable hepatic metastases: the European Institute of Oncology (EIO) Experience.

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CS-PHP (Delcath Systems Inc., New York, NY) is a unique repeatable catheter-based regional approach and is indicated in all those patients with unresectable hepatic involvement by different solid cancers. Placed in the inferior vena cava through a trans-femoral approach, it allows hepatic chemosaturation with Melphalan by effectively isolating the liver from the systemic venous circulation. It permits to treat the entire liver (including invisible micro-metastases), reducing systemic toxicities by Melphalan filtration, thus improving safety. Furthermore it is repeatable and minimally invasive.

Here, we present our experience at IEO on four patients treated for liver metastasis: 3 from ocular melanoma and 1 from colon cancer. Two of them (ocular melanoma) received a second procedure at 6 weeks from the previous one, for a total of 6 procedures performed.

At baseline, all pts were evaluated by vascular anatomy CT scan, hematochemistry and PET scan. After discharge, they were monitored with hematochemistry evaluation twice per week. CT and PET scan were performed after 6 weeks from treatment on three patients after the first procedure and showed 2 stabilization of disease (ocular melanoma patients and one mixed response (colon cancer).

The procedure was well tolerated without acute toxicities apart for a quick drop of hemoglobin and platelets levels that required blood support in 3 patients (G3 haemoglobin toxicity) and platelets support in 2 patient respectively (G4 platelets toxicity). Only one patient did not require transfusional support at the first round (G2 platelets and G2 haemoglobin toxicity). All patients received a GCSF stimulation for at least 7 days: after the first 3 procedures they were started from day +7, in the second 3 procedures they were started earlier on day +3. Two pts required hospitalization for febrile neutropenia (G4) with transfusional support, with subsequent complete hematological rescue. The other 2 patients experienced G2 neutropenia. As main non hematological toxicity all patient experienced G3 fatigue and 1 developed hepatic toxicity G3.

In conclusion, PHP is a safe and feasible procedure, although the hematological toxicity recorded requires a careful management of these pts. Complete data on toxicity and efficacy will be presented and discussed.