LB-O-01 Long-term outcome of liver transplantation for unresectable liver metastases from Neuroendocrine neoplasms: a Belgian retrospective multi-centre study

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Topic: 12: Transplant Oncology

Background: Liver transplantation (LT) is the only curative treatment for unresectable liver metastases from neuroendocrine neoplasms (NEN-Liver-Mets). While recurrence is frequent after LT, there is limited data available in the literature on the outcome of recurrent patients.

Methods: We retrospectively reviewed the medical records of all patients who underwent LT by NEN-Mets at the six LT centres in Belgium from 1986 to 2020. Patient and tumour characteristics, indication for transplantation, overall survival (OS), disease-free survival (DFS), and tumour recurrence and outcomes were analysed.

Results: Forty patients underwent a LT for NEN-Liver-Mets in Belgium. Twenty-nine patients were male (74.2%) with a mean age of 41.9 and 47.1 years at the time of NEN diagnosis and LT, respectively. WHO classification was available for 32 patients and changed over time (see table below). OS post-LT at 1-, 5-, and 10-years are: 84,3%, 65,0% and 54,6% respectively, while the overall DFS are: 76.3%, 44.5% and 38.2% in the same intervals. Patients transplanted after 2010 showed better OS at 5-and 10-years (74.8% and 74.8%) when compared with patients transplanted before (60,0% and 49.5%). Twenty patients (50%) presented a NEN recurrence, of this, 14 (70%) were transplanted before 2010 and only 6 (30%) were transplanted afterwards (p=0.03). The median time for recurrence diagnosis was 12.3 months (range: 5.1 to 69.2). The most frequent recurrence treatments were surgical resection, somatostatin analogs, chemotherapy, and sunitinib therapy (8, 6, 6, and 4 patients, respectively). Survival rates were 89.5% and 56.1% at 1- and 5-years after recurrence diagnosis.

Table 1: Patients and tumour characteristics

	Patients	LT before 2010	LT after 2010	*p*
Population	40 (100%)	20 (50%)	20 (50%)	NS
Mean Age at NEN diagnosis (years)	41.9±	40.0±10.6	43.6±11.3	NS
Mean Age at LT (years)	47.1±	45.0±10.4	49.6±12.4	NS
Primary tumour site				
Pancreas	23 (57%)	11 (55%)	12 (60%)	NS
Small bowel	10 (25%)	5 (25%)	5 (25%)	NS
Duodenum	1 (2.5%)	1 (5%)	0	NS
Stomach	2 (5%)	0	2 (10%)	NS
Biliary tree	1 (2.5%)	0	1 (5%)	NS
Unknown	1 (2.5%)	1 (5%)	0	NS
Bronchial tree	2 (5%)	2 (10%)	0	NS
WHO classification				0.01
Grade 1	10 (25%)	5	5	
Grade 2	17 (42.5%)	6	11	
Grade 3	5 (12.5%)	2	3	
Not defined	8 (20%)	8	0	
Endocrine Syndrome	16 (40%)	7 (44%)	9 (56%)	NS
Primary tumour resection prior LT	34 (85%)	17 (50%)	17 (50%)	NS
Post-LT NEN recurrence	20 (50%)	14(70%)	6 (30%)	0.03

Conclusions: Patients transplanted for unresectable NEN-Liver metastases had good long-term survival. Although the total recurrence rate is high, it decreased dramatically after 2010, probably due to better patient selection. Furthermore, recurrence treatment should be recommended as it may prolong patient survival.

Saturday, May 7 , 10:20 - 10:30
Plenary Abstract Session II