TPS4225 Poster Session

A multi-centre, stratified, open, randomized, comparator-controlled, parallel group phase II trial comparing adjuvant treatment with 177Lu-DOTATATE to standard of care in patients after resection of neuroendocrine liver metastases (NELMAS).

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Background: Gastro-entero-pancreatic (GEP) neuroendocrine tumours (NET) are steadily increasing in incidence and prevalence. About 65%-95% of GEP NET show hepatic metastases. Surgery is the mainstay of treatment for NE LM. While macroscopically complete resection for NE LM is associated with favourable overall survival (OS), recurrence rates of up to 70% at 3 years and up to 95% at 5 years are reported. These results call for adjuvant treatment concepts which have not yet been established. **Methods:** A prospective open-label, multicentre randomised parallel-group trial was conducted in patients with resected GEP NE LM. Adjuvant treatment with ^{177}Lu-DOTA^{0}-Ty^{3}-ocreotate (^{177}Lu-DOTATATE) (total administered activity 14.8 GBq) is compared with standard of care (SOC). The frequency of administration is 2 cycles (8±1weeks between each cycle). The first cycle is applied 8±2 weeks after liver resection. The control arm consists of SOC. Main inclusion criteria are well differentiated grade 1 or grade 2 (Ki67 < 20%) GEP NET, R0 or R1 resection of NE LM, primary tumour already resected or resected synchronously with LM, ^{68}Ga DOTATATE PET/CT prior to surgery confirming LM and no extrahepatic disease (except resectable perihilar lymph node involvement and/or primary tumour, if still in place). Main exclusion criteria are high grade NET, neuroendocrine carcinoma, R2 resection of LM, peptide receptor radionuclide therapy at any time prior to randomisation in the study, and any type of liver directed therapy within 12 weeks prior to randomisation in the study. Primary endpoint are disease-free survival (DFS) at 3 years after liver resection. The sample size of 106 patients in total is powered to detect an HR of 0.27, reflecting a 44% DFS probability at 3 years post-surgery in the ^{177}Lu-DOTATATE arm compared with a 25% in the SOC arm. Secondary endpoints OS, time to tumour recurrence, time to administration of subsequent antineoplastic therapy, safety and tolerability of ^{177}Lu-DOTATATE, health-related quality of life, patient reported outcomes, and cost effectiveness. Ancillary objectives explore the clinical utility of novel molecular based biomarkers in identification of residual microscopic disease and early detection of recurrent disease. Enrolment has begun. Follow-up data will be collected for 5 years overall from the date of randomisation of the last patient. Discussion: The NELMAS trial aims to investigate the efficacy of adjuvant therapy with ^{177}Lu-DOTATATE (2 cycles) compared to standard of care in preventing tumour recurrence in patients following R0/R1 resection of LM of well differentiated GEP NET. Clinical trial information: NCT05987176. Research Sponsor: Novartis/AAA; The Taylor Family 2010 Charitable Trust.