Impact of liver tumour burden, alkaline phosphatase elevation, and target lesion size on treatment outcomes with ^{177}Lu-Dotatate: an analysis of the NETTER-1 study

To assess the impact of baseline liver tumour burden, alkaline phosphatase (ALP) elevation, and target lesion size on treatment outcomes with ^{177}Lu-Dotatate.

Significantly prolonged median PFS occurred with ^{177}Lu-Dotatate versus octreotide LAR 60 mg in patients with low (< 25%), moderate (25-50%), and high (> 50%) liver tumour burden (HR 0.187, 0.216, 0.145), and normal or elevated ALP (HR 0.153, 0.177), and in the presence or absence of a large target lesion (diameter > 30 mm; HR, 0.213, 0.063). Within the ^{177}Lu-Dotatate arm, no significant difference in PFS was observed amongst patients with low/moderate/high liver tumour burden (P = 0.7225) or with normal/elevated baseline ALP (P = 0.3532), but absence of a large target lesion was associated with improved PFS (P = 0.0222). Grade 3 and 4 liver function abnormalities were rare and did not appear to be associated with high baseline liver tumour burden.

^{177}Lu-Dotatate demonstrated significant prolongation in PFS versus high-dose octreotide LAR in patients with advanced, progressive midgut NET, regardless of baseline liver tumour burden, elevated ALP, or the presence of a large target lesion.

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