C-2

Real-World Comparison of Lanreotide and Octreotide LAR Use for Neuroendocrine Tumours (NETs) in British Columbia, Canada

Shehara Mendis[1]; Justin Jao[1]; M.K.C. Lee[1]; Sharlene Gill[1]; David Schaeffer[2]; Daniel Renouf[1]; Jonathan Loree[1]

[1]BC Cancer; [2]Vancouver General Hospital

BACKGROUND: Long-acting somatostatin analogues (LA-SSAs) have symptomatic and anti-proliferative effects in well differentiated NETs of the pancreas and small bowel. However, no head-to-head trials comparing efficacy of LA-SSAs exist.

METHODS: We evaluated prescribing pattern and efficacy of lanreotide and octreotide LAR in patients diagnosed with pancreatic or small bowel NETs between 1990 and 2015 in a population-based cohort from British Columbia, Canada. Prescribing patterns, progression free survival (PFS), overall survival (OS), and time to treatment failure (TTF: cessation of LA-SSA for any reason) were compared between agents. Lanreotide funding began in 2015, and octreotide LAR funding began in 1999 locally. Patients who discontinued an SSA for reasons other than progression (ie post surgical debulking) were censored from PFS.

RESULTS: Of 770 cases identified, 305 received LA-SSA. Baseline characteristics are in Table 1. In the first line, 30 received lanreotide, of whom 2 switched to octreotide LAR (7%) during therapy, and 275 patients received octreotide LAR, of whom 37 (13%) switched to lanreotide (P=0.29). There were no differences in age (P=0.95), gender (P=0.54), primary site (P=0.51) or grade (P=0.69) between groups. Use of dose escalation (7% vs 35%, P<0.001) was higher with octreotide LAR but rescue short acting octreotide use did not differ (0% vs 10%, P=0.09). Median PFS (Hazard Ratio (HR) 0.48; 95% confidence interval (95% CI) 0.30-0.78) and OS (HR 0.38; 95% CI 0.21-0.68) were longer with lanreotide than octreotide

LAR in first line. TTF was comparable between groups (P=0.57); median follow-up was longer with octreotide LAR (P<0.001).

CONCLUSION: Lanreotide was associated with longer PFS, OS, and less use of dose escalation versus octreotide LAR. This may be due to small numbers of patients receiving lanreotide due to later approval and differences in follow-up. Validation in larger cohorts and greater follow up is needed to directly compare efficacy.

Table 1: Patient characteristics and outcomes for those receiving lanreotide or octreotide LAR first line

Characteristic	Lanreotide first line (n=30)	Octreotide LAR first line (n=275)	P Value (HR, 95% CI where applicable)
Median age at diagnosis (range)	62.0 years (46.9 - 83.9)	64.1 years (21.1 - 90.4)	0.95
Gender – Male : Female	18(60%): 12(40%)	149(54%): 126(46%)	0.54
Primary Site – Pancreas : Small Bowel	7(23%): 23(77%)	80(29%): 195(71%)	0.51
Grade – 1 : 2 : 3 : unknown(under review)	10(33%): 12(40%): 0(0%): 8 (27%)	40(15%): 51(19%): 3(1%) :181 (66%)	0.69
Median time to LA-SSA start (months)	23.6	9.6	0.010
Median follow-up (months)	31.9	98.5	<0.001
Median PFS (months)	37	13.5	0.022 (0.48, 0.30-0.78)
Median OS (months)	Not reached	55.3	0.026 (0.38, 0.21-0.68)