Lanreotide depot (LAN) post-octreotide long-acting release (OCT) for safe and tolerable treatment of gastroenteropancreatic neuroendocrine tumors (GEP-NETs)

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INTRODUCTION

The incidence of neuroendocrine tumors (NETs) has been increasing rapidly in the US, with Surveillance, Epidemiology, and End Results Program (SEER) data showing a 6.1% increase from 1973 to 2004 (0.51/100,000 to 0.53/100,000).

Data also show that the mean survival rate in the US and Europe, overall median survival duration is 7 months.

Lanreotide depot (LAN) is used for treatment of patients with well- or moderately-differentiated, locally advanced or metastatic, gastroenteropancreatic neuroendocrine tumors (GEP-NETs) in order to improve progression-free survival (PFS).

The randomized, double-blind, placebo-controlled Clinical Laboratory of Antiproliferative Response in Neuroendocrine Tumors (CLARINET) trial compared LAN with placebo and demonstrated a significantly prolonged progression-free survival (PFS) of all patients with NETs (11.4 vs. 1.8 months). At month 5, the estimated rates of progression-free survival were 46.8% vs. 13.2% (p<0.0001) for LAN and placebo groups, respectively.

Although primary treatment for metastatic NETs often includes somatostatin analogs (SSAs), the tolerability of sequential use of SSAs for patients with NETs, including SST2 (octreotide) followed by LAN, has not been studied in depth.

OBJECTIVE

During this ongoing institutional case series, we assessed the safety and tolerability of LAN in patients with various GEP-NETs who experienced disease progression or lack of tolerance to OCT.

METHODS

Following institutional Review Board (IRB) approval, a retrospective chart review at Tufts University Medical Center was conducted for NET patients who received LAN post-OCT.

Information obtained included demographic data, tumor stage, primary lesion, current/statename/duration of biochemical markers (chromogranin [CgA], urinary 5-hydroxyindoleacetic acid [5-HIAA; primary metastate of serotonin(s)], radiologic, and anatomic events (AEs)).

Serologic tumor markers were evaluated at each visit.

A 24-h urine collection was obtained every 6 months.

Radiologic imaging, including CT scan of abdomen, pelvis, and chest, was performed every 3 months.

Other AEs associated with therapy.

Data efficacy outcomes such as progression-free survival and overall survival were evaluated at the time of data collection.

RESULTS

All 16 patients (16 female) with nonfunctional and low-grade ileal or pancreatic NETs were included (age range 25-81 years; mean 64.25 years) (Table 1).

Locations of primary tumors and metatatic sites, along with grade, stage, histology, and whether or not they were functional are presented in Table 1.

All but 7 of the 16 patients had decreases in CgA level after initiation of treatment with LAN (CgA levels: 273-55 to 14-44 nmol/L) (Table 3).

The prescribing information of LAN includes renal dose adjustments:

Moderate to severe renal impairment: initial dose is 0.6 mg by deep subcutaneous injection every 4 weeks, followed by dose adjustments as described for non-renal-impaired patients.

The results presented here indicate safe and tolerable treatment of NETs who experienced disease progression or lack of tolerance to OCT.

Neither the investigation, nor the presentation, nor the support received from the study sponsor had any influence on the authors’ conclusions.

CONCLUSIONS

LAN was well tolerated among these patients with GEP-NETs who experienced disease progression or lack of tolerance to OCT.

In transitioning from OCT to LAN, levels of CgA decreased in all but 1 of the patients, with the greatest reductions occurring among the 10% that had the greatest levels prior to treatment with LAN.

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REFERENCES


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