Evaluation of Switching SSAs on GI-NET Progression: Experience at an Academic Medical Center

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BACKGROUND

- Long-acting somatostatin analogs (SSAs) are an important systemic therapy option for advanced/metastatic gastrointestinal well-differentiated neuroendocrine tumors (GI-NETs).
- Of the 2 commercially available SSA formulations, Octreotide has been available for use in the US for decades while Lanreotide was approved for use in 2014.
- There are no RTCs comparing the efficacy of the two formulations; choice of agent often depends on medication availability, formulary preferences, and patient/physician preference.
- Previous small studies have suggested efficacy in switching SSA analog treatment on progression following initial treatment with Octreotide.[1]

AIM

- With the availability of several FDA-approved second line therapy options, including PRRT, we sought to review patient outcomes of switching SSA formulations at our academic medical center.

METHODS

- Single-center, retrospective review of patients with locally advanced or metastatic well-differentiated GI-NETs.
- Patients ≥18 years of age treated with both Octreotide and Lanreotide between 01/2007 and 12/2023 were included.
- Outcomes were analyzed for patients who transitioned between SSAs due to disease progression.
  - Disease progression defined as radiographic evidence of disease progression and/or worsening serologic markers.
- All patients who switched SSA due to disease progression were noted to have switched from Octreotide to Lanreotide.

RESULTS

	NET patients (n = 37)
Median age, years (IQR)	61.0 (50.0-65.0)
Male, n (%)	20 (54.1)
Primary site, n (%)	
Small bowel	11 (29.7)
Pancreas	5 (13.5)
Colon/Rectum	5 (13.5)
Other/unknown	16 (43.2)
WHO Differentiation, n (%)	
Grade 1	19 (51.4)
Grade 2	8 (21.6)
Grade 3	0 (0)
Unknown	10 (27.0)

Table 1: Clinical characteristics of NET patients who received both SSA formulations.

	Patients with disease progression (n = 19)
Median age, years (IQR)	62.0 (53.0-65.5)
Male, n (%)	13 (68.4)
Evidence of Progression	
Imaging	16 (84.2)
Serologic/Clinical	3 (15.8)
WHO Differentiation, n (%)	
Grade 1	13 (68.4)
Grade 2	3 (15.8)
Grade 3	0 (0)
Unknown	3 (15.8)

Table 2: Clinical characteristics of patients with disease progression after SSA transitions
*One patient was excluded due to loss of follow-up

<u>19/20 patients with disease progression</u>

- Transitioned SSAs from Octreotide to Lanreotide
- Imaging progression (84.2%) vs. serologic/clinical progression (15.8%)
- Median progression-free survival after switching to Lanreotide: 97 days (95% CI, 73-147)

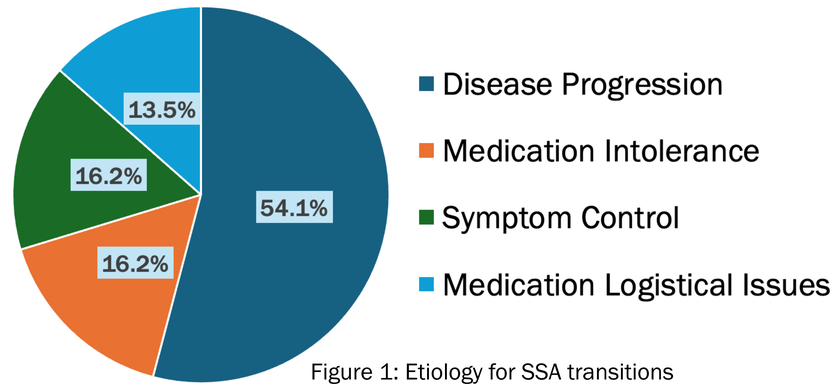

Figure 1: Etiology for SSA transitions

DISCUSSION

- This real-world retrospective cohort study demonstrates the limited activity of switching SSAs in patients with progressive disease following first-line treatment with SSAs in the metastatic/locally advanced well-differentiated GI-NET population, with a progression-free survival following switching therapy of 97 days.
- This practice has been noted in our region and we sought to evaluate its efficacy in this limited retrospective study. With the availability of several FDA-approved second-line therapies, our study does <u>NOT</u> support its use.
- The limitations of our study include a small sample size, limited data on WHO Grade, and the inclusion of patients who were deemed to have progressed on therapy based on serologic markers and symptoms alone.

References: