

Response to Interferon Alpha (IFA) in Patients with Small Bowel Neuroendocrine Tumors (SB-NETs)

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Background: Small bowel NETs are uncommon with very variable survival outcome. Many therapeutic options are now available. Post surgical resection and other proactive interventional procedures, somatostatin analogue (SA) therapy is used for symptom control and disease management. In some patients disease remains indolent while in others, when other therapeutic options are exhausted, disease progresses. For several decades some centres have used IFA concomitant with SA when SA alone is failing.

Methods: We report the findings from 15 patients who commenced SA concomitant with IFA, in order to control symptoms and disease progression. IFA (3MU) was administered 3 times weekly and in 6/15 patients the dose was increased to 6 or 10 MU 3 times weekly.

Results: Male female ratio was 8:7. At the time of diagnosis at surgery or biopsy, Ki67 was <2% in 15/15 patients and 3/15 patients had carcinoid heart disease. All 15 patients had advanced symptomatic carcinoid disease on SA therapy. Two patients died within 1 month of starting IFA. Five patients did not tolerate the side effects of IFA and chose to discontinue within 3 months. A further patient stopped treatment at 6 months. Of these 6, 3/6 reported symptom response and 4/6 showed biomarker response during treatment. Survival was 12 (6-29) months post IFA commencement. Seven patients responded to IFA, 7/7 reported symptom control and 7/7 showed a significant reduction in circulating NKA 126(28-4500) to 48 (8-750) ng/L (median and range) with 6/7 showing

significant reduction in urinary 5HIAA output 384(55-1180) to 78 (48-804) umol/L. Survival in these patients was 108 (21-207) months post commencement of IFA therapy. Radiology showed stable disease in all of these patients for between one and six years.

Conclusion: IFA concomitant with SA offers improved survival for many patients with late-stage small bowel NETs.