

**Multicenter Prospective Phase II Trial of  
Bevacizumab (bev) for Progressive Pancreatic  
Neuroendocrine Tumor (PNET)**

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Supported by NCI N01 Contracts: HHSN261201100099C, HHSN261201100100C, N01-CM-62206

**Background:** Single agent trials of mTOR inhibitors and VEGF receptor TKIs in PNET yield response rates < 10%. We previously demonstrated a 41% PR rate in PNET with the combination of temsirolimus and bevacizumab in patients with progressive PNET<sup>1</sup>. There are no data regarding the efficacy of single agent bevacizumab in PNET.

**Methods:** We conducted a multicenter phase II trial of bevacizumab at a dose of 10 mg/kg IV q 2 weeks in patients (pts) with well or moderately differentiated PNET, adequate organ function, and ECOG PS of 0-1. Important eligibility criteria included requirement for progression of disease by RECIST within 7 months of study entry. No prior anti-VEGF pathway inhibitor therapy was allowed. Ongoing octreotide was allowed at stable dose if required for symptom control. Primary endpoint was response with null hypothesis of 10% and promising result was defined as 30%. Planned enrollment was 21 pts.

**Results:** 22 pts enrolled from 10/2012 through 6/2014 were eligible for response assessment. 7 patients remain on therapy. Confirmed PR rate is 14% (3/22). 6 month progression free survival (PFS) was 95% (20/22). 19 out of 22 pts have follow-up > 12 months. The Kaplan-Meier 12 month PFS was 65% (95% CI: 34-85%). Median PFS is 18 months (95% CI 10.7- NA). Therapy was well tolerated with no grade 3-4 AEs except 36% of patients with grade 3 hypertension.

**Conclusion:** Bevacizumab therapy for progressive PNET is associated with promising clinical activity and a favorable toxicity profile. A median PFS of 18 months and a 14% confirmed PR rate were demonstrated in this trial of patients required to have RECIST criteria progression within 7 months prior to study enrollment.