Background: A TNM staging system was designed by ENETS to stage small bowel NETs. This study aims to retrospectively stage patients with known small bowel primary NETs and see whether survival is dependent on stage and grade of disease and finally to identify cause of death.
Methods: 138 patients with small bowel NETs were identified from Kings College Hospital. Primary site: Duodenal 2.1% (3), Jejunal 2.9% (4), ileal 95% (131). Mean duration of follow-up of 5 years. Median age 61 years (range 24–84).
Results: TNM staging and follow-up data was available in 118 cases. Due to low numbers of Stage 2 and 3 tumours these were group together for comparison. There were four cases with stage 2, 23 cases with Stage 3 and 91 cases with stage 4 small bowel NETs. Kaplan- Meier plots were constructed these demonstrated a significant difference in survival between patients with different stage of disease (P=0.03). There was no significant difference in survival between stage 2 and stage 3 disease. There was a significant survival difference between G1 (Ki67 ≤2) vs. G2 (Ki67 3-20) p=0.049. There was a significant survival benefit in patients whom underwent resection of primary tumour compared to those who did not (120 vs 56 months, p<0.005). The overall 5 year and 10 year survival was 79.5% and 48.5% respectively for all patients independent of stage of disease. Of the patients that died the median time to death from diagnosis was 3 years (range 0-14). The cause of death was related to tumour burden in 50% (22 patients), carcinoid heart disease in 11.3% (5 patients), post intervention (1 case surgery, 1 case post-embolization) 4.5%, small bowel obstruction or perforation 13.6% (6 patients) and non-tumour related deaths in 24.5% (9) patients.
Conclusion: This study demonstrates the ENETS TNM staging prognosticates survival. Overall survival has improved compared to the published SEER data.

Medical Treatment Consensus in Unresectable Midgut Gastrointestinal Neuroendocrine Tumors

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Background: Neuroendocrine tumors (NETs) comprise mostly carcinoid or pancreatic NETs and are rare with symptoms that may be difficult to control. Current treatment guidelines lack some specificity. We summarize an expert panel consensus on medical treatment of well-differentiated unresectable midgut NETs.
Methods: Consensus statements were developed via RAND/UCLA Delphi process, which involved a diverse group of physician experts (e.g., by specialty, geography, practice) developing comprehensive clinical patient scenarios and rating the scenarios on the appropriateness of various medical therapies before and after a face-to-face meeting. Experts and moderator were blinded to funding source. Scenarios were rated on a 1–9 scale and were labeled as appropriate, inappropriate, or uncertain. Scenarios with >2 ratings in 1–3 and >2 in 7–9 range were considered to have disagreement and were not assigned an appropriateness rating.
Results: Panelists (age: 38-63 years) were from the northeast, midwest, south, and west regions. Specialties represented were medical and surgical oncology, interventional radiology, and gastroenterology. Panelists had practiced for a mean 15.5 years (range: 6–33). Panelists rated 202 scenarios. The proportion for which there was disagreement decreased from 11.7% (23 scenarios) before the meeting to 4.5% (9) after. Post-meeting, 49% (99 scenarios) were rated inappropriate, 29.7% (60) were uncertain, and 16.8% (34) were appropriate. Consensus statements from the scenarios included: 1) it is appropriate to use somatostatin analogs (SA) as 1st-line therapy in all patients, 2) it is appropriate to increase the dose/frequency of octreotide-LAR as 2nd-line therapy in patients with uncontrolled symptoms up to 60 mg every 4 weeks or up to 40 mg every 3 or 4 weeks for refractory carcinoid syndrome. Other treatment options may also be appropriate in 2nd-line.
Conclusion: Treatment consensus obtained in this study is concordant with NCCN recommendations. The Delphi process allowed quantification of ratings in a systematic and reliable way while improving consensus in a group of physicians on the appropriateness of medical therapies in midgut NETs.

Prognostic Validity of the American Joint Committee on Cancer (AJCC) Staging Classification for Midgut Neuroendocrine Tumors

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Background: The American Joint Committee on Cancer (AJCC) staging manual has introduced a TNM staging classification for jejunal-ileal (midgut) neuroendocrine tumors (NETs). This classification has not been validated in a population consisting solely of midgut NETs.
Methods: Patients with jejunal and ileocecal NETs treated at the Moffitt Cancer Center between 2000 and 2010 were assigned stages (I-IV) based on TNM staging classification. Kaplan-Meier analyses for overall survival (OS) were performed based on TNM stage and pathologic grade using log-rank tests. Survival time was measured from time of initial diagnosis until date of last contact or date of death. Multivariate modeling was performed using Cox proportional hazards regression.
Results: We identified 691 patients with histologically-proven jejunal and ileocecal NETs. The AJCC classification in aggregate was highly prognostic for overall survival (P<0.00001). 5-year overall survival (OS) rates for stages I, II, III and IV were 100%, 100%, 91% and 72% respectively. The survival difference between stages III and IV was significant (p<0.00001); the difference between stages I/II versus III was not statistically significant (p=0.1). Among patients with stage IIIB tumors, 5-year survival rates were 95% for resectable tumors versus 78% for unresectable mesenteric tumors (P=0.02).
Conclusions: Stages I and II midgut NETs are associated with identical survival rates and are unlikely to be prognostically distinct. Stage IIIB tumors are heterogeneous, with significant differences in survival observed between resectable mesenteric lymph nodes versus unresectable masses in the root of the mesentery. Revisions to the current AJCC staging classification may therefore be warranted.

Treatment of Metastatic Neuroendocrine Tumors of the Thymus with Capecitabine and Temozolomide: A Case Series

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Background: Metastatic neuroendocrine tumors of the thymus are exceedingly rare with an annual incidence of approximately 0.2 per 1,000,000. They are highly resistant to therapy, and there have been no reports of an objective radiographic response to treatment.
Methods: The authors retrospectively evaluated three patients with progressive, metastatic neuroendocrine tumors of the thymus who were treated with a combination of capecitabine and temozolomide. Radiographic scans were evaluated and response assessed using RECIST criteria.
Results: One patient experienced a partial radiographic response, another patient experienced a minor response and the third patient experienced stable disease as the best response to treatment.