

ASSESSING THE ROLE OF A RIGHT HEMICOLECTOMY IN THE MANAGEMENT OF APPENDICEAL NEUROENDOCRINE TUMOURS AT A TERTIARY-CARE CENTRE

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Background: While it is clear that neuroendocrine tumours of the appendix (NET-A) <1 cm can be treated with a simple appendectomy alone, management of NET-A between 1- to 2 cm and >2cm remains controversial. Current guidelines suggest that a right hemicolectomy (RHC) is recommended for tumours >2 cm and for tumours 1- to 2 cm with high risk features such as deep mesoappendiceal invasion (MAI), high Ki67 and/or high mitotic rate. The rates of lymph node (LN) metastasis in patients who had RHC for tumours >2 cm is variable in literature, ranging from 0-50%. Even in the cases of LN invasion, there is still unclear evidence to show that RHC improves overall survival or that it is clinically justified. Since there are no standardized adjuvant treatments for NET-A, the LN status would not further inform additional therapy, thus questioning its role in practice.

Aims: Given the indolent nature of these tumours, the notion of over-treatment with RHC in patients with NET-A between 1- to 2 cm and >2 cm arises. The objective of this study is to assess the role of RHC in the management of NET-A. This was achieved by determining the nodal positivity rate based on size and by examining the relationship between the surgical approach used, various prognostic factors (tumour location, MAI, LN invasion, etc.), post-operative complication rates, and survival outcomes.

Methods: An 8-year retrospective study was performed on patients with a pathological diagnosis of NET-A. Patients were excluded if they had a diagnosis of a non-appendiceal neuroendocrine tumour or an appendiceal non-neuroendocrine tumour.

Results: Forty-nine patients were identified with a diagnosis of a NET-A (mean age 40.4, 95% CI 36.3-44.5). Twenty-seven tumours (55%) were <1cm, eighteen (37%) were 1-2cm, and four (8%) were >2cm. Five patients with tumours <1cm had RHC (19%), while seven had one with tumours 1-2cm (39%). All four patients with tumours >2cm had RHC. Of the tumours <1cm, none were node-positive, while 11% of tumours 1-2cm were node-positive. All tumours >2cm had node-positive disease. The overall complication rate for patients who were treated with RHC was 31%. Based on the Clavien-Dindo classification, there were two grade I, one grade II, and two grade III complications. There was no recurrence of disease and there were no

deaths due to NET-A across all patients.

Conclusions: The use of a right hemicolectomy is shown to be unnecessary for tumours <1cm. In tumours >2cm, all patients had nodal disease – while it may not affect overall survival, its use may be justified to reduce the risk of local disease recurrence. A minority of patients had positive nodal disease in the 1-2cm group. In these cases, the risks of surgery vs. observation should be balanced to prevent the risk of over-treatment, especially with the lack of evidence for the benefit to overall survival.

Funding Agencies: None