

Appendicular Neuroendocrine Neoplasm is Associated with Acute Appendicitis - Don't Miss the Boat

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Abstract

Background: Appendicular neuroendocrine neoplasms (ANEN) are rare tumours diagnosed incidentally on histology after an appendicectomy carried out for acute appendicitis. Five years survival rate of node-negative an early ANEN is over 90%. However, the growing interest, among clinicians, to treat appendicitis by antibiotics only, could potentially miss these indolent tumours. The aim of our study was to look at the incidence and management of ANEN discovered in appendicectomy specimens carried out for acute appendicitis.

Methods: A retrospective review was performed for all patients undergone appendicectomy, at Barnsley hospital from 2009 to 2015, as suspected acute appendicitis, with particular focus on incidence, investigations and outcome of ANEN.

Results: During 2009-2015, 1562 appendicectomies were carried out for acute appendicitis, with 11 specimens showed neuroendocrine tumours (0.70%). Mean age of patients was 31.73 years, with 81.8% female. 8 patients had laparoscopic appendicectomy (72.7%), 2 had open appendicectomy (18.2%), while one had laparoscopic converted to open appendicectomy. Tumour size was less 10 mm in 6 patients (54.5%), between 10-20 mm in 4 (36.4%). Majority were located at the body/base of appendix (54.5%). All tumours were grade 1 well differentiated tumours. 9 patients had clear resection margins, while two patients needed further surgery as an open right hemicolectomy as a curative procedure. In our series, 3 patients (27.27%) had follow up scans 2 years after surgery and showed no tumour recurrence.

Conclusion: Appendicectomy is the curative procedure for the majority of ANEN. As shown in our study, if acute appendicitis is managed with conservative treatment only, there is less than 1% risk of missing the diagnosis of ANEN. Also, two of our patients had locally advanced diseases. These could definitely have a poor prognosis without ap-pendectomy.

Key words: appendicitis, neuroendocrine tumor, appendix, appendiceal neoplasms