

Do We Still Need to Perform Routine Histological Examination of Appendectomy Specimens?

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Dear Sir,

Appendiceal cancer is exceedingly rare, accounting for 0.5% of all gastrointestinal neoplasms with the age-adjusted incidence of 0.12 case per 1,000,000 people per year [1]. Owing to its vague and bizarre presentations, primary appendiceal cancer cannot be diagnosed preoperatively and is diagnosed in only 0.9%–1.4% of appendectomy specimens. Carcinoid tumours have been reported to be the most frequent primary tumours of appendix, accounting for 32%–85% of all appendiceal tumours, followed by adenocarcinomas that comprise further 4%–6% of tumours [2]. Appendiceal adenocarcinomas are extremely aggressive tumours behaving similar to that of colonic adenocarcinomas, requiring right hemicolectomy for curative intent.

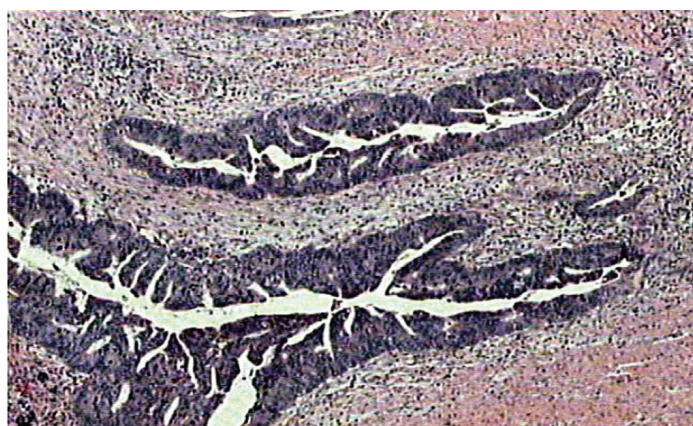
A retrospective study showed 10 cases of adenocarcinoma of the appendix from a total of 9323 appendectomies [Table/Fig-1] (0.1%: 8 men and 2 women with a mean age of 53.1 years) [3]. Akbulut et al., reported unusual histological findings in 54 of 5462 (1%) appendectomy specimens; 37 enterobiasis, 6 carcinoids, 4 mucinous cystadenomas, 2 eosinophilic infiltrations, 2 mucocoeles, 2 tuberculosis, and 1 neurogenic hyperplasia [4]. An examination of 4545 appendectomy specimens, performed for acute appendicitis, showed 44 (0.97%) unexpected tumours of appendix including an adenocarcinoma and a primary lymphoma of the appendix [5]. Another series analysed histological reports of 324 appendectomy specimens and reported 8 unexpected lesions [6]. The study concluded that surgeons should bear in mind the possibility of unusual pathologies justifying the need for the routine

histopathological examination of appendices. Meticulous attention to the gross operative findings such as abnormally hard part of appendix, grossly visible/palpable lymph nodes in peri-appendiceal region, and the arrangements for frozen-section during surgery can help identify the tumours at an earlier stage.

Although fecoliths and lymphoid hyperplasia are the common aetiologies of acute appendicitis, some rare but vitally fatal lesions may also cause appendicitis. On the same note, intraoperative observations alone are not enough to identify the unexpected disease. The most frequent unusual findings in appendectomy specimens are parasites and benign or malignant tumours. Although the routine histological examination of appendectomy specimens poses a burden on the financial and technical resources, current research strongly justifies this practice. There is a need for routine histopathologic examination of the appendectomy specimens. The histologic examination is valuable in identifying unexpected conditions which may require further management depending on the nature of the disease process. Specimens from patients with suspected acute appendicitis may exhibit a myriad of histological variations including cancerous growths [7]. With increasing emphasis on cost-effectiveness in surgery, routine pathological examination of appendectomy specimens, although expensive and labour-intensive, still holds a valuable promise in diagnosing unexpected appendiceal lesions.

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[Table/Fig-1]: A well-differentiated adenocarcinoma of the appendix showing the glands with severe hyperchromatism and the stroma surrounded by lymphocytes

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