

CASE STUDY

MALIGNANT TUMORS OF THE APPENDIX: CLINICAL AND MORPHOLOGICAL ANALYSIS OF CASES FROM THE PRACTICE

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ABSTRACT

The authors have analyzed medical histories of two patients, treated in health care facilities of Kharkiv region from 2008 to 2020. These patients underwent urgent appendectomy, given the existing clinic of acute appendicitis. Morphological examination of the surgical material allowed us to diagnose adenocarcinoma in one case, and neuroendocrine tumor in combination with endometriosis in the other case.

Morphological examination of the surgical material in the first case revealed a moderately differentiated adenocarcinoma and diffuse neutrophilic infiltration in all layers of the appendix, and in the second case – a well-differentiated neuroendocrine tumor (G3), combined with the signs of phlegmonous-ulcerative appendicitis and loci of endometriosis. In both cases, there were no specific for the oncological process anamnestic and clinical-instrumental data, and these tumors were manifested by the clinic of acute appendicitis. Only morphological examination of the surgical material allowed identifying the pathological process.

Clinical and morphological analysis of cases from the practice of malignant tumors of the appendix (neuroendocrine tumor and adenocarcinoma) will be useful and interesting for the medical community and should stimulate cancer vigilance in physicians.

KEY WORDS: neuroendocrine tumor, adenocarcinoma, appendix, clinical and morphological analysis

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INTRODUCTION

Malignant tumors of the appendix are a rare pathology, accounting for 0.4% to 1.0% of cases among all malignant neoplasms of the gastrointestinal tract. The incidence of the appendix malignant tumors, according to world statistics, is 0.12 per 1.000.000 people per year [1].

According to most scientists, its true incidence is unknown. This figure is usually calculated based on morphological examination of surgical material (surgically removed appendicitis) and does not take into account the results of autopsy [2]. As a rule, the appendix is studied macroscopically, and it is not subject to microscopic examination. As a result, the existing tumor process is skipped and not diagnosed by the pathologist.

Benign and malignant tumors of different histogenesis may develop in the appendix. Its epithelial layer is characterized by the presence of enterocytes, goblet cells, enterochromaffin cells, which can be a source of epithelial, goblet and neuroendocrine tumors development. Lymphoid tissue of the mucous and submucosal of the appendix can

be a source of lymphoma. Tumors of mesenchymal origin can also develop in the appendix [3].

The most common among all malignant tumors of the appendix are neuroendocrine tumors (65-90% of cases) and tumors of epithelial origin, represented by adenocarcinomas (up to 20% of cases) [4].

Neuroendocrine tumors of the appendix are 1.7 times more often diagnosed in women than in men, mostly between the ages of 20 and 40 years. There have been also cases of neuroendocrine tumor of the appendix in children. Adenocarcinoma of the appendix develops more often in men than in women aged 45 to 70 years [1, 5].

Malignant tumors of the appendix in the initial stages are characterized by asymptomatic course or manifest in the clinic of acute appendicitis. The expressed clinical manifestation of malignant process, as a rule, occurs at its progression and distribution on adjacent organs, development of metastases, accession of purulent-septic complications in the form of periappendicular abscesses, intestinal fistulas, etc. [6]. Neuroendocrine tumors may