Case report
Prikaz bolesnika

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A case report of appendiceal adenoma – a rare entity

Prikaz bolesnice s adenomom apendiksa – rijedak entitet

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Summary

Appendiceal neoplasms are quite uncommon. They are detected in fewer than 0.5 percent of appendectomies and less than 0.5 percent of all gastrointestinal neoplasms. Similar to a colonic adenoma, an appendiceal adenoma is neoplasm with precancerous nature. A rare case of appendiceal adenoma is presented here in a 65-year-old female patient, incidentally discovered at the orifice of the appendix, during the screening analysis. The patient felt well. Abdominal examination and laboratory analysis were regular. Due to the inaccessibility of the lesion by colonoscopy, surgical treatment was recommended. A laparoscopic appendectomy was performed. On pathological examination, diagnosis of tubulovillous adenoma was performed. Endoscopic screening analysis of precancerous appendiceal neoplasm is very important. The method of choice for any appendiceal neoplasm is surgical removal i.e. appendectomy, preferably with a clean caecal margin, which requires stapling of the cecum. Early detection can prevent complications and decrease the risk of consequential appendiceal or colorectal carcinoma.

Key words: adenoma, appendectomy, appendix, appendiceal neoplasms, diagnostic screening programs, dysplastic changes, colonoscopy

Sažetak

Tumori apendiksa prilično su rijetki. Javljaju se u manje od 0,5 % apendektomija i u manje od 0,5 % svih gastrointestinalnih tumora. Slično kao i adenoma kolona, adenoma apendiksa prekancerozne su prirode. Prikazali smo rijedak slučaj adenoma apendiksa, incidentalno otkrivenogna u ušću apendiksa, skrininig metodom. Bolesnica se u vrijeme analize osjećala dobro. Klinički pregled i laboratorijske analize bili su uredni. Bolesnici se preporuči kirurški tretman. Uradi se laparoskopska apendektomija. Patohistološkom analizom postavi se dijagnoza tubuloviloznog adenoma. Endoskopska skrining analiza prekanceroznih neoplazmi apendiksa i kolona od iznimne je važnosti. Za sve tumore apendiksa metoda izbora je kirurška - apendektomija s dobijanjem čistih resekciskih margina, što zahtijeva stapliranje cekuma. Rana detekcija ovih neoplazmi prevenira komplikacije i smanjuje rizik od posljedičnih koloničnih i karcinoma apendiksa.

Ključne riječi: adenoma, apendektomija, apendiks, tumori apendiksa, dijagnostički skrining program, displastične promjene, kolonoskopija

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Introduction

Appendiceal neoplasms are quite uncommon. They occur in under 0.5% of cases of the total number of GI tumors and in under 1% of appendectomies.[1-3] Neuroendocrine tumors (NETs) and tumors with an epithelial origin comprise most of appendiceal tumors. Other more rare tumors are metastatic

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tumors, lymphoma, tumors of neural origin, and mesenchymal tumors.[4]

In between 30 and 50 percent of patients, appendiceal neoplastic lesions most frequently mimic or cause acute appendicitis.[5]

About 10% of appendiceal polyps are detected incidentally.[6] They were reported in 0.004 and 0.08% of autopsies.[7]

Rarely, polyps may be concealed inside the appendiceal lumen near the appendiceal orifice and occasionally only become apparent after thoroughly examining the coecum. Only three instances like this have been documented in the literature thus far.[8-10]

Appendectomy is the method of choice for treating appendiceal adenomas, as it leaves a tumor-free resection margin.[3]

Here we report a case of an incidentally discovered appendiceal tubulovillous adenoma.

Case history

The Ethics Committee of Zenica Cantonal Hospital approved this case report and the patient gave us informed consent for the data we used in this article.

A 65-year-old female was accepted to the routine colonoscopy screening which revealed a polypoid lesion at the orifice of the appendix. The patient was asymptomatic. Laboratory results were regular.

The dilated bowel loops precluded the radiologist to find the appendix. At the Surgery Department, a laparoscopic appendectomy was performed (Fig.1). The base of the appendix is secured by a single endoloop. Three days after surgery, after a routine postoperative observation, the patient was released from hospital. The appendix was sent to the Pathology Department for analysis.

Grossly, the appendix was measured 7.5×1.2×1 cm. At the 5 mm of resection margin a polypoid lesion with a diameter of 5 mm was observed. The appendiceal wall was of regular thickness. Microscopic analysis showed tall columnar epithelium with focal stratification and mild dysplastic alterations, predominantly covering a mucosa with tubulous and discreet papillary infoldings (Fig.2). The layers of the wall and residual mucosa were normal. The surgical margin of the appendix was free of tumor. The pathohistological diagnosis was tubulovillous adenoma of the appendix with mild dysplasia.

Discussion

An appendiceal adenoma is an uncommon pathological diagnosis.[11] In most cases, they are asymptomatic and discovered unintentionally. Only cases progressing to acute appendicitis and intusussception are symptomatic, and the symptomatology corresponds to the underlying disease.[3] About 10% of these polyps are unintentionally discovered during laparotomies during unrelated surgeries.[6] Also, these polyps were discovered in 0.004 and 0.08% of autopsies.[7]

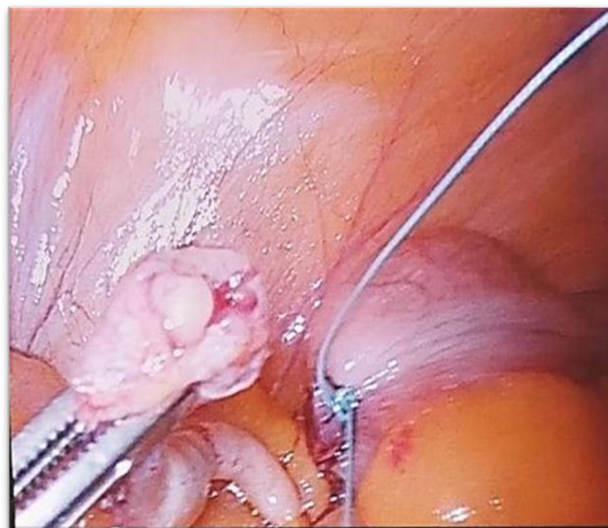

Figure 1 Laparoscopic appendectomy. There is a polypoid lesion at the tip of the sample.
Slika 1 Laparoskopska apendektomija. Na vrhu uzorka prisutna polipoidna lezija.

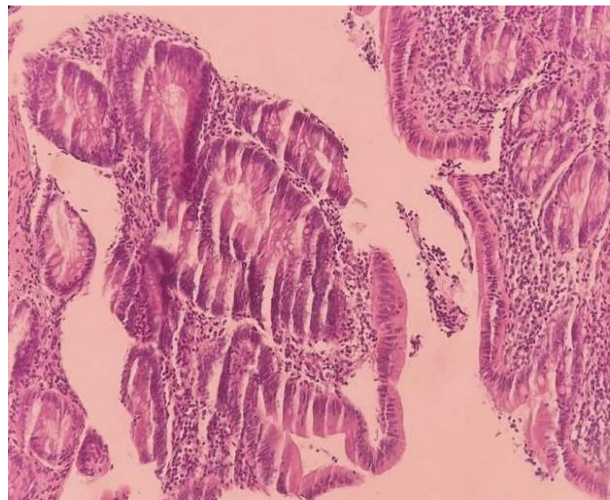

Figure 2 Microscopic appearance of appendiceal adenoma with mild dysplasia, ×20 HE.
Slika 2 Mikroskopski izgled adenoma apendiksa s umjerenom displazijom, ×20 HE.

Like colonic adenoma, appendiceal adenoma is precancerous lesion and can develop into carcinoma.[12] It is thus essential to identify

precancerous appendiceal neoplasm early on for they can be associated with adenoma and adenocarcinoma elsewhere in the gastrointestinal tract, especially in the colon. Once they are diagnosed, the patient needs further analysis and follow-up.[12] Appendiceal adenomas are lesions with tubular, villous, or combined tubulovillous architecture. They originate from the mucosa. A focal serrated pattern may also be seen. In the stratified epithelium, there are dysplastic changes, with crowding, nuclear atypia, and focal mitotic figures.[4] In dependence on the number and size of the adenoma, the patients are categorized into two groups, with low and high risk. The first recommended monitoring colonoscopy for low-risk patients, defined as those with one to two tubular adenomas smaller than 1 cm, should be carried out every five to ten years.[13] The second category consists of those with high-risk adenomas, which are defined as having three or more tubular or adenomatous polyps with a diameter of at least 1 cm or having villous histology or high-grade dysplasia. In this category, the first recommended surveillance colonoscopy should be performed after three years.[14] A prospective cohort research involving 15,935 patients found that, after 13 years of follow-up, patients with high-risk adenomas had a risk of colorectal cancer that was 2.7 times higher than that of patients without adenomas annually.[15] In a recent retrospective study, 38.3% of the 691 individuals with appendiceal polyps identified by colonoscopy were non-neoplastic lesions, and 61.6% were neoplastic lesions, according to histological analysis. Neoplasms comprise 30.4% adenomas, 30.2% tubular lesions, 2.4% tubulo-villous lesions, 0.1% villous lesions, 17.8% sessile serrated lesions/polyps, 8.8% hyperplastic lesions, and 1.1% conventional serrated lesions. In 0.4% of adenomas, high-grade dysplasia was present.[16]

Due to the close relationship between appendiceal adenomas and synchronous or metachronous colorectal adenomas and carcinomas, patients with appendiceal adenomas require careful assessment of the remaining colon.[3]

In cases of most appendiceal neoplasms, the treatment of choice is surgery. The minority of appendiceal adenomas are pedunculated, and just in that case the treatment of choice is endoscopic removal.[17]

Endoscopic screening analysis and early detection of appendiceal adenoma have a crucial role. Endoscopists have to be aware of a hidden adenoma, especially at the orifice of the appendix. Endoscopic or laparoscopic appendectomy has to provide a resection margin free of tumor, and close follow-up is recommended due to the precancerous nature of the adenoma.

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