



Appendicular Adenomatous Polyps: Variability in Clinical Presentation and Management

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Abstract

Background: Appendicular adenomatous lesions are rare, mostly diagnosed on pathology postoperatively. The clinical outcomes of this condition have yet to be determined. We reviewed our clinical experience with a series of such cases which was never reported in the recent times.

Case Presentation: 5 cases of appendicular adenomatous lesions which were managed at Bronx Lebanon Hospital Center (BLHC) department of surgery between 2007-2014 are included. Mean age was 55 years (48-76 years), 2 female and 3 male patients. Two patients required diagnostic colonoscopy for bleeding per rectum and were found to have appendicular lesions. Two patients were found to have lesions on screening colonoscopy. One presented with acute appendicitis. Two patients underwent standard appendectomy, one required appendectomy with partial cecectomy, one required right hemicolectomy whereas one underwent colonoscopic polypectomy. No post-operative complications were observed in patients who underwent surgery. On the mean follow up of 8 months, no synchronous malignant lesion was found. Two cases had synchronous cecaladenomatous polyp and one case had sigmoid hyperplastic polyp.

Conclusion: Appendicular adenomatous polyps can have variable presentations especially in the era of screening colonoscopy. Endoscopic resection and surgical removal is based on the histological nature and completion of resection.

Keywords: Adenoma; Appendix; Villous adenoma; Serrated adenomas screening colonoscopy

Introduction

Appendicular adenoma comprises 0.02-0.14% of appendicular lesions [1,2]. It is more prevalent in adults between 60-80 years of age [1,2]. The most common clinical presentation is finding incidentally in appendectomy specimens; on the other hand there are case reports of them presenting with intussusception; ruptured appendix; rectal bleeding or identification during screening colonoscopy [3-5]. The clinical course of appendicular adenomas if they were left alone is not well known. In the literature there are only 71 have been reported of villous adenoma [6]. In this case series our purpose is to report our experience in management of appendicular adenomatous lesions.

Materials and Methods

This is a retrospective review of case series of appendicular adenomatous lesions managed between 2007 and 2013 at BLHC department of surgery. All cases of appendicular adenomatous lesions were retrieved from hospital database. Cases were reviewed with a particular attention given to clinical presentation; investigations performed; surgical management and follow up surveillance.

Definitions

Hyperplastic (metaplastic) polyps: A focus of mucosal hyperplasia in which the crypts of Lieberkühn show a sawtooth configuration as a result of crenate epithelium. The cells are columnar with or without apical mucous vacuoles alternating with large goblet cells. The bases of the crypts are lined by regular cells with small, round nuclei.

Villous adenoma: An adenoma having 80% of dysplastic epithelium arranged as straight villous fronds.

Serrated adenoma: An adenoma that has crenate sawtooth-like structural changes in the dysplastic epithelium covering the basal aspect of the crypts of Lieberkühn, as a result of epithelial infolding. When serrated fronds are present in more than 50% of the dysplastic structures,

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the adenoma is classified as serrated adenoma. The remaining adenomatous tissue usually shows metaplastic or villous structures. We have used a limit of more than 50% [7].

Results

5 cases of appendicular adenomatous lesions were identified to be managed between 2007-2014 at BLHC. Mean age was 55 years (48-76 years); two female and three male patients. Two of the cases presented with bleeding per rectum and appendicular lesions were identified during diagnostic colonoscopy. In two cases routine screening colonoscopy revealed the lesions. One case presented with acute appendicitis. Two patients underwent standard appendectomy; one required appendectomy with partial cecectomy; one required right hemicolectomy where as one underwent colonoscopic polypectomy. Pathology of lesion was tubulovillous adenoma in two cases. One had extensive high grade dysplasia on endoscopic resection and required right hemicolectomy for the purpose of obtaining clear margins. Two patients underwent standard appendectomy in which pathology showed tubulovillous adenoma with no dysplasia. Two patients had tubular adenomas. There were no post-operative complications in the cases that underwent surgery. On a mean follow up of 8 months; no synchronous malignant lesion was found. Two cases had synchronous cecaladenomatous polyp and one case had sigmoid hyperplastic polyp.

Discussion

Appendicular adenoma comprises a very small percentage of all appendicular neoplasms [1-2]. Majority of these lesions are diagnosed on biopsy specimens of appendix. Colonoscopic identification is rather rare [8]. Clinically; the most common presentation reported is right iliac fossa pain with or without acute appendicitis. However cases of various clinical manifestations have been reported in the literature including intussusception; perforated appendix; and rectal bleeding and on screening colonoscopy [3-5,9,10]. In our case series; the clinical presentation was varied. Presentation with no symptoms; incidental discovery on screening colonoscopy; presentation as acute appendicitis and bleeding per rectum requiring diagnostic colonoscopy were the different clinical pictures. Diagnosis of appendicular adenomatous lesions are incidental [1] however there are case reports of preoperative colonoscopic diagnosis of these lesion as seen in all cases of our series [5,11]. Surgical resection in the form of appendectomy; right hemicolectomy is the mainstay of treatment however the option of endoscopic resection have been reported [5,11-13]. In our series; two standard appendectomies were done. For the purpose of obtaining clear margins in patients with tubulo villous adenomas and dysplasia; partial cecectomy and right hemicolectomy were performed. Besides one patient underwent endoscopic resection. The clinical course of appendicular adenomatous neoplasms is not clear. Associated malignancy have been reported especially in the setting of villous adenomas [3,14]. It is generally accepted that adenocarcinomas of the appendix are preceded by an adenomatous growth. Fenoglio-Preiser [15] classified adenomas of the appendix into mucinous cystoadenomas; mixed hyperplastic villous adenomas; and serrated adenomas. Williams divided benign tumors of the appendix into adenomas; hyperplasias; and mixed adenoma/hyperplasia (serrated adenomas) [16]. More recently Carr "et al." [17] postulated that the precursor lesion in tumors of the appendix is probably a villous or a serrated adenoma. Serrated adenomas of appendix have

been found to be more aggressive than other adenomatous lesions of colon and rectum [16,18]. There were no serrated adenomas in our case series. Follow up and surveillance colonoscopy for patients with adenomatous lesions of appendix has yet to be determined. The screening guidelines for polyps of colon and rectum could possibly be applied on similar lesions of the appendix [12,19,20].

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