Challenges on imaging follow-up for rectal neuroendocrine tumor endoscopic local resection: case report

Desafios no acompanhamento de imagens de tumor neuroendócrino retal com ressecção endoscópica local: relato de caso

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Summary

We report a case of neuroendocrine tumor in rectum that was endoscopically resected and discuss the need of imaging follow-up for the early detection of cancer co-morbidities to improve prognosis.

Keywords: Neuroendocrine Tumor, Rectum, Endoscopic Resection, Imaging Follow-up.

Resumo

Relato de um caso de tumor neuroendócrino no reto, que foi submetido à ressecção endoscópica e avaliada a necessidade de imagens de acompanhamento para a detecção precoce de câncer como comorbidade para melhorar o prognóstico.

Unitermos: Tumor Neuroendócrino, Reto, Ressecção Endoscópica, Imagem Follow-up.

Introduction

The incidence of neuroendocrine tumors (NET) is about 3.9% of all colorectal cancers, and rectal occurrence ranges from 23% to 33% of the cases[1]. Once upon diagnostic tests in rectum are realized for common reasons, NET on this location usually represent incidental findings being smaller than late symptomatic tumor[2]. In the present case, a patient with silent rectal NET was submitted to rectosigmoidoscopy due to hemorrhoidal disease which showed the unexpected polyp in rectum. An endoscopic excision of the lesion was done because of its size and unknown malignant potential.

Case Report

A 63-year-old man presented with external hemorrhoids and hematochezia two years ago. He had no tenesmus, no abdominal pain, no bowel habit changes, and no small-caliber stool. Rectosigmoidoscopy visualized a 0.7cm polyp in the rectum proximally 5cm from the anal verge. The lesion was endoscopically removed and the pathologic examination showed grade I submucosal neuroendocrine tumor (Fig.A), infiltrative in the lamina propria mucosae. Immunohistochemical studies of the biopsy specimens were strongly positive for chromogranin A (Fig.B) and cytokeratins AE1/AE3 (Fig.C), and focally positive for neuron-specific enolase (Fig.D).

It was performed colonoscopy to find out synchronic and residual lesions that revealed a 0.3cm sessil polyp and diverticulosis in the cecum. The polypectomy resulted in tubulovillous adenoma with high grade dysplasia. At that time, abdominal computed tomography did not detect any tumor. One year later, upper endoscopy, rectosigmoidoscopy, computed tomography and abdominal ultrasonography had non-significant changes. A second colonoscopy noted a sigmoid polyp with hiperplasia on histological analysis. In the next year, the patient repeated rectosigmoidoscopy that demonstrated an erythematous area nearly 5cm from the anal verge, associated to nonspecific chronic retitis on the microscopic observation. Since then, the patient has been followed

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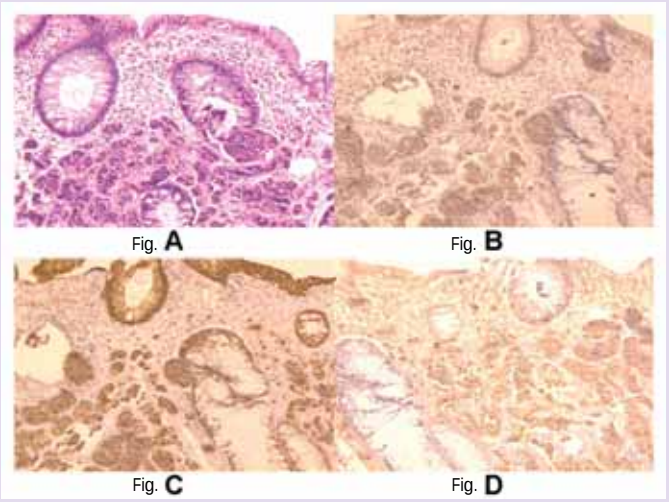

The tumor was composed of neuroendocrine cells (A). Imunohistochemical staining showed that tumor cells were strongly positive for chromogranin A (B) and cytokeratins AE1/AE3 (C), and focally positive for neuron-specific enolase (D).

with rectosigmoidoscopy or colonoscopy and computed tomography scan every 6 months and no others lesions were found with those imaging investigation methods the past 4 years already.

Discussion

The incidence of neuroendocrine tumors (NET) is about 3.9% of all colorectal cancers, and rectal occurrence ranges from 23% to 33% of the cases[1]. Once upon diagnostic tests in rectum are realized for common reasons, NET on this location usually represent incidental findings being smaller than late symptomatic tumor[2]. In the present case, the patient was submitted to rectosigmoidoscopy due to hemorrhoidal disease which showed unexpected polyp in rectum. An endoscopic excision of the lesion was done because of its size and unknown malignant potential.

Compared to the other areas of gastrointestinal tract, NET in rectum are the smallest and most of those are well-differentiated neoplasms[3]. However, metastasis can be found in 1.7% to 3.4% of patients with lesions less than 10mm in diameter[4]. This way, in face of rectal polyp excision that further showed worrying diagnosis, it is difficult to decide between clinical follow-up or radical surgery and the literature is unable to draw specific treatment recommendations based upon the current studies.

As the patient had a small lesion, no alarm symptoms and because the tumor presented itself as incidental finding, a radical surgery was not performed. In subsequent conduct, endoscopic and radiological exams were semiannually realized to rule out not only distant metastases but also synchronous and metachronous non-endocrine malignancies. It is proven that patients who develop NET have a higher risk (55%) for presenting them, most commonly adenocarcinomas of the gastrointestinal and genitourinary system[5]. Regarding to the present case, the unique other associated lesion that appeared in an achieving success 4-year follow up, a cecal adenoma with high grade dysplasia, or adenocarcinoma in situ, was identified by initial colonoscopy.

Conclusion

This report suggests that as a result of early detection of cancer comorbidities, imaging follow-up improves considerably prognosis of these patients, so such screening is necessary regardless of whether endoscopic resection or radical surgery start treatment of rectal NET.

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