

**(21241) - UNDERWATER ENDOSCOPIC MUCOSAL RESECTION OF A RECTAL
NEUROENDOCRINE NEOPLASIA – A NEW THERAPEUTIC APPROACH**

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Introduction

Neuroendocrine neoplasms are a group of tumors originating from neuroendocrine cells and peptidergic neurons. Rectal neuroendocrine tumors are the second most common location for gastrointestinal neuroendocrine tumors, albeit only representing 2% of all rectal neoplasms. Most of these are nonfunctional and asymptomatic, although pain, blood loss and perianal discomfort can occur in larger lesions. Endoscopically, rectal neuroendocrine neoplasms typically appear as small and well-delimited submucosal lesions, with a yellowish color. The risk of lymph node metastasis is related to the tumor size. Therefore, the current guidelines consider endoscopic resection as an option for rectal neuroendocrine tumors under 2 centimeters. The classical options for lesion removal include endoscopic mucosal resection (EMR) and endoscopic submucosal dissection (ESD). However, EMR has a higher risk of incomplete resection, whereas ESD is more invasive and has an increased risk of complications (bleeding and perforation). In this clinical scenario, underwater endoscopic mucosal resection (UEMR) appears as an alternative that facilitates the complete removal of a lesion through the filling of the intestinal cavity with water. Large multicentric studies suggest a higher complete resection rate with this endoscopic technique when compared to conventional EMR.

Objective

This case shows the use of UEMR for endoscopic removal of a rectal neuroendocrine tumor.

Case description

A 48-year-old female with arterial hypertension and dislipidemia was sent to a Gastroenterology consult after altered results in a screening endoscopy. The colonoscopy revealed a 10-millimeter subepithelial lesion in the medial rectum. The following was histologically characterized as a well differentiated rectal neuroendocrine neoplasm. The patient was asymptomatic. An entire body Ga68-DOTA-TOC Positron Emission Tomography-CT revealed a single small focus of agent accumulation in the posterior

rectum wall, congruent with the finding of neuroendocrine tumor. Furthermore, body computerized tomography and pelvic magnetic resonance ruled out distant metastasis and lymph node involvement. The case was discussed in the multidisciplinary colorectal Oncology group and the patient was proposed for endoscopic resection. The proctosigmoidoscopy revealed a 10-millimeter subepithelial lesion 10 centimeters distant from the anal margin. After marking the lesion borders with soft coagulation, the entire rectal cavity was filled with water. Then, an underwater mucosectomy was performed with a monofilament snare. The lesion scar was closed with 6 endoscopic clips (3 Lockado® 16mm clips, 2 Boston Resolution® clips, 1 Lockado® 8mm clip). The patient had no procedure related complications and was discharged from the endoscopic unit a few hours after the procedure. The anatomopathological report revealed a 2.5-millimeter thickness neuroendocrine tumor with a low proliferative index (Ki-67 of under 3%), without vascular or perineural invasion and negative tumor resection margins. In conclusion, the neoplasm was staged as a NET G1, pT1aR0 tumor (according to the World Health Organization Classification System). The patient has entered a follow up program after the curative resection.

Case Relevance

This case report aims to showcase UEMR as an effective alternative to conventional mucosectomy, achieving high satisfactory complete resection rates, while having a low rate of procedure related complications. Therefore, UEMR should be considered when considering an endoscopic removal for rectal neuroendocrine neoplasms.

Palavras-chave : Underwater Endoscopic Mucosal Resection, Rectal Neuroendocrine Neoplasia, Endoscopy