**Actinomyces infection as a complication of a post-radiotherapy rectal ulcer**

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**BACKGROUND**

Brachytherapy, as a part of the treatment in prostate cancer, could associate early and late local complications in the rectum (1,2). *Actinomyces* usually grows as an opportunistic infection in ischemic-necrotic tissue. It is rarely involved in actinomycosis, a disease which consists in the development of oral, pulmonary and gastrointestinal abscess (3,4).

**CASE REPORT**

We present the case of a 72-year-old man who underwent radical prostatectomy after he had been diagnosed with adenocarcinoma. After three years, the patient presented a biochemical recurrence of the disease, so that he received 33 brachytherapy sessions.

Five months later, he was admitted for rectal pain and bleeding. A colonoscopy was performed, revealing a severe proctitis, diffuse edema, and ulceration. The entire rectal surface was covered with an exudate, areas of necrosis and a nodular pseudopolyp formation. In the central area of a large ulcer there was a depression with a fistulous opening (Fig. 1). Feces for microbiological testing and biopsy specimen were taken. The pathology report described a granulation tissue and degenerative thickening of blood vessel wall compatible with actinic proctitis. Furthermore, there were PAS-positive granules suggestive of typical actinomycosis “sulfur granules” (Fig. 2). A pelvic MRI showed a lack of tissue of 29 x 13 mm in the anterior surface of the rectum. Moreover, there was an absence of sphincter and a fistulous tract between the rectum and the prostatectomy bed. It was difficult to control anal pain; therefore, the use of opioids drugs was needed. The patient started an antibiotic regimen with levofloxacin and metro-minazol.

Finally, a discharge colostomy was performed in order to interrupt the intestinal transit through the affected rectal area. Currently, the patient is receiving hyperbaric treatment as an attempt to improve tissue oxygenation. This might increase healing and re-epithelialization capacities in the anterior rectal wall.

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Fig. 1. Endoscopic imaging. Rectal surface was covered with an exudate, necrosis areas, and a nodular pseudopolyp formation.

Fig. 2. PAS positive granules: “sulfur granules”.
Fig. 3. Pelvic MRI. Lack of tissue in the anterior surface of the rectum.

REFERENCES