

Surgical Treatment for Radiation Enteritis Complicated by Invasive Candidosis: A Case Report

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Abstract:- Radiation enteritis could lead to life-threatening condition needing prompt recognition and adequate treatment. Herein we report a case of surgical treatment for radiation enteritis complicated by invasive candidosis in order to raise awareness of the importance of preventive measures avoiding such complications. A 56-year-old woman had a radical hysterectomy for cervical adenocarcinoma followed by chemotherapy and brachytherapy. She consulted for abdominal distension, vomiting, and weight loss secondary to stenotic radiation enteritis. An ileo-cecal resection was performed with ileo-colic side-to-side anastomosis. She developed systemic candidosis in the postoperative course with a good evolution under antifungal treatment. Histopathological exam of the surgical specimen concluded to lesions consistent with radiation enteritis. No recurrence occurred after a follow-up of three months. Preventive measures before radiotherapy could avoid radiation enteritis, surgical treatment, and life-threatening invasive candidosis.

Keywords:- Case Report, Invasive Candidosis, Radiation Enteritis, Complication, Surgery.

I. INTRODUCTION

Radiation enteritis constituted a serious complication after radiotherapy implicating surgical treatment. It could lead to life-threatening condition needing prompt recognition and adequate treatment [1].

Herein we report a case of surgical treatment for radiation enteritis complicated by invasive candidosis in order to raise awareness of the importance of preventive measures avoiding such complications.

II. CASE REPORT

A 56-year-old woman with no medical history had a laparotomy radical hysterectomy for cervical adenocarcinoma in January 2022 followed by chemotherapy based on cisplatin and brachytherapy at the dose of 6 Gray in one fraction six months later. She received Riva for pulmonary embolism. She was then followed closely at the gynecologic out-patient department. No relapse was noticed after a follow up of ten months. She consulted at our department for abdominal distension, vomiting, and weight loss. Physical examination was normal except a symmetric distension. Biological exams were within normal ranges especially renal function. After short-term resuscitation measures undertaken, computed tomography was performed. It concluded to regular thickness in the ileum consisting with radiation enteritis. The diagnosis of stenotic radiation enteritis was retained. Colonoscopy didn't demonstrate the association of recto-colic lesions. The multidisciplinary consultation meeting decided small intestine resection via laparotomy. Per operatively, the last 70 cm of the ileum were whitish with a thickened fibrotic wall (Figure). An ileo-cecal resection was performed with ileo-colic side-to-side anastomosis leaving Three meters of gross healthy small intestine. The postoperative course was marked by several complications. An abdominal fluid retention without anastomotic leakage was diagnosed at the 15th postoperative day. A percutaneous drainage revealed a sero-hematic fluid. Bacteriological exam concluded to Klebsiella oxytoca sensitive to current antibiotic therapy. Then oral candidosis was diagnosed at day 20. Oeso-gastro-duodenal endoscopy demonstrated candidal oesophagitis. An antifungal treatment was associated to antibiotic therapy. In front of persistent fever with pancytopenia, systemic candidosis was suspected. It was confirmed by multiple mucosal surfaces and blood samples. Since it was due to antibiotic-induced microbial ecosystem perturbation, antibiotic discontinuation therapy was done in association to probiotics and systemic antifungal agents leading to spectacular evolution. Antifungal therapy based on Fluconazole was maintained until 14 days after etiologic agent eradication. Histopathological exam of the surgical specimen concluded to lesions consistent with radiation

enteritis. No recurrence occurred after a follow-up of three months.

III. DISCUSSION

Our case illustrated an underestimated radiotherapy side-effect with serious consequences to manage especially an invasive candidosis. Hence, the best treatment is the prevention of radiation-induced small bowel disease by reducing radiation exposure and protecting small bowel from being irradiated. These goals implicated using modern radiotherapy techniques, evening radiotherapy sessions in accordance with circadian rhythm effects, and surgical artefacts to move away the small bowel from the irradiation field [1]. For established and complicated lesions as in our case, surgery remained challenging because of the adhesions, the difficult to handle fibrous small intestine, the risk of short bowel syndrome, as well as wound healing difficulties [1]. It led to a morbidity rate of 21.7% with an overall survival of 89%, 79% and 69% at 1, 3, and 5 years respectively in the absence of neoplasia relapse [2].

As in our case, invasive candidosis occurred in immunocompromised status due to malignancy, major surgery, immunosuppressive agents, chemotherapy, antibiotics, intravenous nutrition, and prolonged hospital stay [3]. Associated mortality rate varied from 10% to 47% of cases [4,5] explaining the diagnosis urgency in front of nonspecific clinical manifestations [6]. It had to be proven via one of the following methods: blood culture, polymerase chain reaction with DNA sequencing, culture from sterile site, or histopathological specimen [7]. Once the diagnosis made, intravenous antifungal treatment had to be administrated in association to infection source removal as central catheters [8,9]. First line therapy was based on sensitivity's etiologic agent: Echinocandin, Fluconazole, or Amphotericin B [3]. It had to be changed to an alternative therapy in case of resistance [3]. Recommended duration of antifungal therapy varied from 14 days after etiologic agent eradication; as in our case; to 12 months for deep-seated cases [4,8].

IV. CONCLUSIONS

Preventive measures before radiotherapy could avoid radiation enteritis, surgical treatment, and life-threatening invasive candidosis.

ACKNOWLEDGEMENTS

For all authors, no COI/Disclosure and Funding/Support to declare. I have received no funding for this study.

INFORMED CONSENT

Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request.

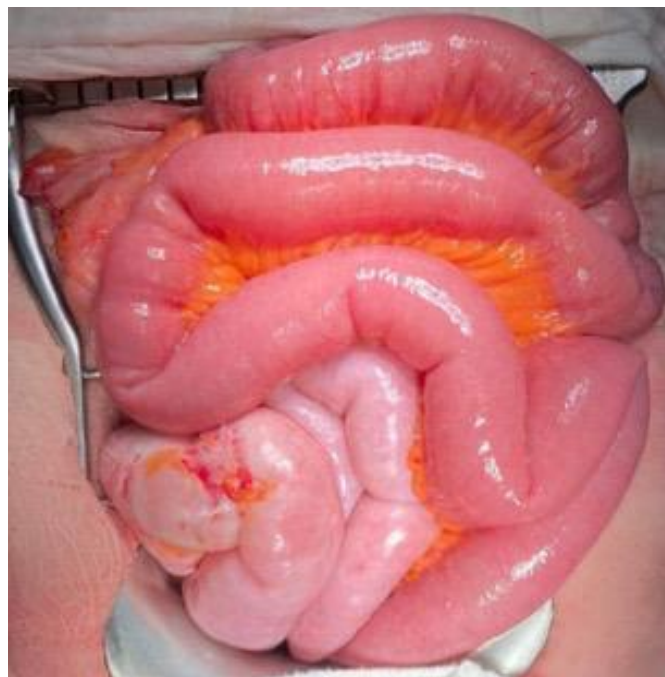


Fig 1 Per operative vue illustrating radiation enteritis with a thickened fibrotic pathological small intestine contrasting with a normal gross aspect.

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