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ETOLOGICAL PROFILE AND MANAGEMENT STRATEGIES OF RADIATION PROCTITIS

Gastroenterology

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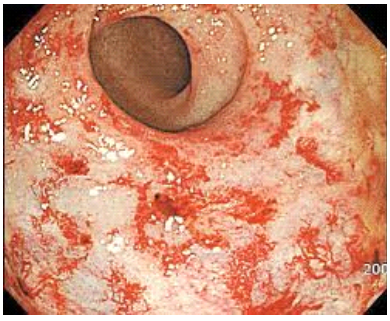
ABSTRACT

Radiation proctitis is defined as rectal mucosal injury with multiple telangiectasia due to radiation with or without inflammation. Objectives and methods. The aim of this study was to present our clinical experience, regarding the argonplasma coagulation, in a small series of patients with radiation proctitis. Retrospective data analysis of patients treated for radiation proctitis in a single hospital setting from the year 2017-2019. Results. 36 patients . All the patients were females. The mean age of the patients was 65+-5 years. Radiotherapy in the management of cervical cancer was the etiology of radiation proctitis in 32 cases 4 had endometrial carcinoma . All cases were initially managed with sucralfate enema 15 patients responded to conservative therapy 21 patients did not respond to medical therapy 14 patients underwent formalin therapy with significant improvement in symptoms 7 patients underwent APC .These patients responded well to the treatment with significant decrease in bleeding and transfusion requirement was noted. Conclusion. There is no evidence-based consensus regarding treatment of radiation proctitis. Argon plasma coagulation seems to be safe and effective choice of treatment, but further studies are required to determine which methods should be considered as the ,,gold standard" choice.

KEYWORDS

BACKGROUND

Radiation proctitis is the condition defined as rectal Mucosal injury with multiple telangiectasias due to radiation that is associated with or without inflammation and occurs after radiotherapy of cancers of the rectum, anus, cervix, uterus, prostate, urinary bladder, or testes [1]. The rectum and sigmoid colon are mostly affected areas. The true incidence of radiation proctitis (RP) remains unclear various analyses show incidence between 2% and 20%, with approximately 85% of patients developing symptoms within the first 2 years after initial radiotherapy [2].Acute radiation injury of rectum occurs within three months of starting radiotherapy. Symptoms of chronic RP arise 3 months and later after radiotherapy, however usual time is 9-14 months [3]. The common symptoms are rectal bleeding, rectal pain, diarrhea, even tenesmus or mucus can occur. There is no evidence-based consensus regarding management of bleeding due to RP, thus the first choice of the treatment remains unclear. Nevertheless various conservative and surgical intervention options have been developed.



In general treatment modalities may be classified as medical, endoscopic or surgical therapies. Different literature sources provide huge variety of therapeutic treatment options which include anti-inflammatory drugs, antioxidants, sucralfates, steroids, formalin applications, sodium butyrate enemas, hyperbaric oxygen therapy, pentoxifylline, rebamipide enemas, Vitamin A, short chain fatty acid enemas, oestrogen/progesterone, sodium pentosane polysulphate, misoprostol suppository, antibiotics [4].Endoscopic intervention techniques include contact probe therapy (heater probe, bipolar electrocautery), laser therapy (neodymium-doped yttrium aluminium garnet (Nd:YAG), potassium titanyl phosphate (KTP) and argon lasers), argon plasma coagulation, radiofrequency ablation, cryoablation [4].Surgical operations range from a proximal diverting stomas to a colorectal resections with or without anastomosis and is considered to be the last resort choice. Since acute RP is often self-healing, the mentioned treatment methods are the most often used for chronic RP.

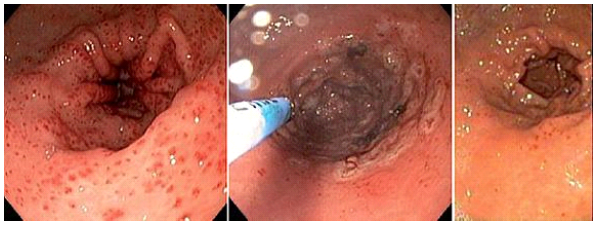
Objectives and methods:

The aim of this study was to present our clinical experience, regarding the various treatment modalities such as argon plasma coagulation(APC),Formalin therapy in patients with Radiation proctitis. Retrospective data analysis was performed.

RESULTS:

A total of 36 patients underwent argon plasma coagulation procedure. All the patients were females and the mean age was 65+-5 years . Most of the patients presented with bleeding per rectum and few patients presented with chronic anemia . Radiotherapy in the management of cervical cancer was the etiology of radiation proctitis in 32 cases 4 had endometrial carcinoma. All cases were initially managed with sucralfate enema 15 patients responded to conservative therapy 21 patients did not respond to medical therapy 14 patients underwent formalin therapy with significant improvement in symptoms 7 patients underwent APC .These patients responded well to the treatment with significant decrease in bleeding and transfusion requirement. Around 5 patients were refractory to any therapy in these patients second plasma coagulation procedure performed. Only one patient responded to 2nd APC .Four patients were refractory to endoscopic therapies.

Mean hospital stay was 5 days .



DISCUSSION

The incidence of RP after pelvic radiotherapy ranges from 2% to 20%. It becomes a challenge to both, patient and specialist. Patient suffers from a persistent symptoms and specialist cannot provide quick solution and treatment, since conservative treatment frequently proves to be inefective and there is no evidence based consensus regarding the issue. Radiation induced proctitis can improve over time even without treatment, so it should be taken into consideration when choosing approach to the issue. What is important, and therefore should be assessed, is the type of RP. Acute RP occurs up to 3 months after initial pelvic radiotherapy and proper hydration, antidiarrheal drugs should be taken into consideration if needed. P. Vernia et al. in the randomised-crossover trial showed that topical sodium butyrate, unlike other therapeutic regimens used so far, proved to be effective in the treatment of acute RP [6].

Symptoms occurring 3 months after radiotherapy are considered as chronic RP. There is a big choice of treatment modalities provided over time. Local application with 4% formaline had been described in 1986 by Rubinstein et al. N.E.Samalavicius et al. in his prospective study stated that local irrigation with formaline under perianal anesthetic block is simple, safe, inexpensive, well tolerated and effective choice of the treatment. Recently, argon plasma coagulation has become one of the preferred choices in dealing with the radiation induced proctitis [1]. Ramakrishnaiah et al. stated that both argon plasma coagulation and formalin are equally effective, yet formalin may be better in severe disease. According to Alfadhli et al. argon plasma coagulation is significantly more effective and more safe in comparison to formalin application. However the study was limited by its retrospective nature [7]. Our personal experience show that formalinapplication and argon plasma coagulation can be equally important and complementary in the treatment of RP. Recent Cochrane review demonstrated there was a significantly increased chance of improvement or cure following hyperbaric oxygen therapy for RP .

Interestingly, Perroti et al. showed that tissue regenerative medicine using platelet derived growth factors can be promising choice of conservative treatment. Thus there is a wide field for further research as many treatment modalities are available, however more data in the form of randomized trials is needed.

CONCLUSIONS

There is no evidence-based consensus regarding treatment of RP. Treatment should be based upon the severity of symptoms. According to literature and our single centre experience argon plasma coagulation seems to be safe and effective choice, nevertheless formalin application can be used as complementary choice as well. There is a need of a further randomised trials regarding cryoblation, radiofrequency ablation, Nd:YAG laser and other modalities of the treatment. Surgery should be considered as the last resort choice.

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