CASE REPORT

Diagnosis and Management of Patients with Radiation Colitis

Made Bayu Agastia Rakateja[1*], Budi Widodo[2]

[1]Department of Internal Medicine, Faculty of Medicine, Universitas Airlangga – Dr. Soetomo General Academic Hospital Surabaya, Indonesia

[2]Division of Gatroenterology, Department of Internal Medicine, Universitas Airlangga – Dr. Soetomo General Academic Hospital Surabaya, Indonesia

ABSTRACT

Radiation colitis (Radiation Proctitis or Proctopathy) is a condition in which injury to the rectal mucosa is induced by radiation therapy to the pelvic organs. Radiation colitis is a condition that progresses and is becoming more common and dangerous—usually occurring 6 months to 5 years following regional radiation. This paper presented the diagnosis and management of patients with radiation colitis. There was a patient who had cervical cancer and was hospitalized every 2-3 months because of red blood chapters and weakness. She did chemotherapy and radiation for one year. The patient also received medical therapy, including rectal administration of sucralfate and oral sulfasalazine. Management of patients with radiation colitis is still a problem. There are no definite and consistent guidelines for the treatment of radiation colitis In this patient's case, medical therapy was recently carried out, including rectal administration of sucralfate and oral sulfasalazine. The patient was planning to undergo surgical therapy, but the patient and family refused. It is necessary to think about endoscopic therapy in patients. Argon plasma coagulation (APC) has become the most widely used first-line endoscopic therapy.

Keywords: Radiation colitis, Cervical cancer, Therapy

Correspondence: Made Bayu Agastia Rakateja
E-mail: bayuagastiarakateja@gmail.com

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INTRODUCTION

Radiation colitis (Radiation Proctitis or Proctopathy) is a condition in which injury to the rectal mucosa is induced by radiation therapy to the pelvic organs. Radiation colitis is a complication of radiation that usually occurs in malignancies in the pelvic area, such as malignancy of the prostate, cervix, uterus, bladder, testicles, rectum, and lymphoma. The incidence of radiation colitis varies between 5% - 20%. Radiation therapy alters the tissue, resulting in mucosal alterations, swollen arterial endothelium, connective tissue fibrosis, and artery endarteritis (Bansal et al., 2016).

Radiation colitis is a condition that progresses and is becoming more common and dangerous. Usually occurring 6 months to 5 years following regional radiation to the pelvic area, the disease is usually iatrogenic and inevitable. Radiation therapy's side effects, especially those that harm the large and small intestines, cause morbidity and mortality. The radiation dose and the gut's varying radiation sensitivity determine the type and extent of damage (Kountouras & Zavos, 2008).

The diagnosis of radiation colitis is based on clinical symptoms and colonoscopy or sigmoidoscopy. Clinical symptoms are usually tenesmus or pain and bleeding. By performing a colonoscopy or sigmoidoscopy on the majority of patients, the diagnosis of radiation colitis can be verified. Mucosal conditions with radiation injury appear pale with friability and telangiectasia. A mucosal biopsy is not used for diagnosis, but to look for other possible causes of colitis such as infection or inflammatory bowel disease (Sarin & Safar, 2013).

CASE REPORT

A patient, Mrs. S, 61 years old, Muslim, and a housewife, came to the ER of Dr. Soetomo General Academic Hospital with complaints of fresh red blood bowel movements three days before hospitalization. The patient had complained of fresh red blood stools for 3 days before entering the hospital. Defecate blood 1 time per day in large quantities. Clots of blood mixed with dirt, the patient also complained that the body felt weak and the head felt dizzy for the last three days. There were no complaints of nausea or vomiting from the patient. In addition, the patient had no complaints of abdominal pain. The patient also complained of decreased appetite for about 1 week and had a weight loss of around 5 kg in the last 2 months.

In the past, there have been patients with a history of illness who had the same complaints. Patients since December 2016 have been routinely hospitalized every 2-3 months with complaints of bloody bowel movements. Usually, when treated, patients get red blood cell transfusions. If the complaint has improved, the patient is sent home with home treatment, namely Omeprazole 2x1 and Sulfasalazine 3x500 mg. There was no history of consuming anti-pain drugs or herbal remedies before. The patient has had an endoscopy or colonoscopy before.

The patient had a history of cervical cancer since 3 years ago (April 2015) and received chemotherapy and radiation therapy. From the beginning of May to the end of September 2015, the patient received chemotherapy seven times. Three rounds of carbopacli chemotherapy were given after four rounds of cisplatin chemotherapy. Then there were 27 rounds of radiation therapy, with two rounds

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of brachytherapy and 25 rounds of external radiation. The patient received brachytherapy on 22 September 2015 and 29 September 2015. External radiation was carried out from 3 December 2015 to 14 January 2016.

The patient has had a history of high blood pressure since two years ago with irregular medication, sometimes taking amlodipine 5 mg. History of diabetes was denied. In the patient's family history, no family has a disease with the same complaints as the patient. None of the family members suffered from malignancy, diabetes or high blood pressure.

The social history shows that the patient was married at 19 years old and had three children. History of expected delivery at the midwife. The youngest child is 36 years old, and the first is 42 years old. History of contraception with the use of birth control pills.

The results of the patient's physical examination showed that the patient looked weak with compos mentis awareness, Glasgow Coma Scale (GCS) 456, blood pressure 110/70 mmHg, pulse 92x/minute, regular, sufficient volume, respiratory rate 20x/minute, axillary temperature 36.5˚C. Head and neck examination revealed anemia, no jaundice, cyanosis and dyspnoea. Lymph node enlargement and increased jugular venous pressure were not found. Chest examination found symmetrical, no retractions, collateral veins or spider naevi, normal heart sounds without murmurs or gallops, and vesicular lung sounds in both hemithoracic fields without rhonchi or wheezing. On examination of the abdomen, there was a soepel, normal bowel sounds, no lumps or enlargement of the liver and spleen, and no ascites. On examination, the extremities were warm and paled in color, and there was no edema. A digital rectal examination revealed decreased anal sphincter tone, no collapse of the rectal ampulla, no mass in the rectal mucosa, no discomfort, red blood on the gloves, and no feces or mucus.

From the laboratory examination when the patient arrived, Hb was 4.5 g/dl; hematocrit 17.4%; leucocytes 6,180/µl; platelets 593,000 g/dl; MCV 72.3 fL; MCH 18.7 pg; MCHC 25.9 g/dl; Eosinophils 0.2 %; Basophil 0.2%; Neutrophils 87.7%; Lymp 7.6 %; Monocytes 4.3%; BUN 14 mg/dl; SK 0.79 mg/dl; GDA 135 mg/dl; SGOT 26 U/L; SGPT 11 U/L; Albumin 4.13 g/dl; total bilirubin 0.39 mg/dl; direct bilirubin 0.14 mg/dl, HbsAg negative; sodium 138 mmol/l; potassium 4.0 mmol/l; chloride 102 mmol/l; SI 9 mg/dl (reference value 35-150); TIBC 272 mg/dl (ref. 250-450); Ferritin test 7.19 ng/ml (reference 20-278 ng/ml). The peripheral blood smear found: Erythrocytes: microcytic hypochromic, anisopoikilocytosis (normocytes, ovalocytes, fragment bytes, spherocytes), polychromatocyte cells (+), normoblasts (-), Leukocytes: normal number impression, dominated by segmental neutrophils, immature granulocytes (-), atypical lymphocytes (-), blasts (-), Platelets: normal count, giant platelets (+) Impression: hypochromic microcytic anemia anisopoikilocytosis. Complete Urine: Glucose: Negative, Bilirubin: Negative, Ketones: Negative, SG:1.010, BLD: Negative, Ph 7.00, PRO 1+, URO:1+, NIT: Negative, Leu: 1+, Color brown, Clarity sl. cloudy, Erythrocytes 0-2/Lp, Leukocytes 2-5/Lp, Little epithelium/lp, Crystals -/Lp, Cylinders -/Lp. EKG results: within normal limits.

Based on the previous data that the patient brought: the results of the upper endoscopy on December 21, 2016, found an esophageal mucosal break +; in gastric no mucosal abnormalities; the duodenum shows erosion. Conclusion GERD, duodenal ulcer. Gastroscopy results on July 17, 2017, showed: the esophageal mucosa looked normal, no varices, ulcers or erosions were seen; at the gastroesophageal junction, a grade B mucosal break was seen; on the stomach, erythematous patches appeared on the fundus, corpus, and antrum, erosion appears on the antrum; the duodenum D1 and D2 seemed to be normal. Conclusion GERD grade B, pangastritis. The results of a gastric biopsy examination on November 9, 2017, concluded: inactive chronic gastritis, H.Pylori: Positive. The results of a colonoscopy examination on November 22, 2017, showed: external hemorrhoids were found in the anus; on the rectum, there is an edematous mucosa accompanied by ulceration with seeping bleeding, fragile mucosa; the sigmoid found no abnormalities; in the descending, transverse, and ascending colon no exceptions were found; the ileum-caecum found no abnormalities; Summary of the effects of Radiation Colitis. At that time, no biopsy was performed because there was active bleeding.

EARLY DIAGNOSIS IN THE ER

Recurrent hematochezia pro evaluation + microcytic hypochromic anemia

THERAPY PLANNING WHEN IN THE ER

Diagnostic planning: repeat colonoscopy, reticulocytes, post-transfusion complete blood count.

Treatment planning for patients: TKTP diet 1900 kcal/day, IUFD NaCl 0.9% 1000 cc/24 hours, inj. Omeprazole 2 x 40 mg, inject As. Tranexamat 3 x 500 mg, PRC transfusion 2 kolf / day up to Hb ≥ 10 g/dl, sucralfate syr 4 x CII.

COURSE OF DISEASE

Second day of treatment: complaints of bloody bowel movements have decreased. Weak general condition, compost mentis awareness, blood pressure 110/70, pulse 88 beats/minute, respiration rate 20 beats/minute, temperature 36.8 C. Dizziness is improving, but the body is still weak. There were no complaints of abdominal pain, fever, or improved appetite. Head and neck examination revealed anemia, no icterus, cyanosis or dyspnoea. Complete blood laboratory results in Hb 5.8 g/dL, leukocytes 6070 / microliter, hematocrit 21.1%, platelets 422,000 / microliter, eosinophils 0.3%, basophils 0.1%, neutrophils 85%, lymphocytes 8%, monocytes 5.2%. PPT 10.4 seconds with control 11 seconds, APTT 21.4 seconds with control 24.4 seconds. The patient received TKTP diet therapy 1900 kcal/day, PRC transfusion 2 kolf/day until Hb ≥ 10 g/dl, NaCl infusion 0.9% 1000 cc/24 hours, inject omeprazole 2 x 40 mg, inject tranexamic acid 3 x 500 mg, sucralfate syr 3 x CII. Monitor vital signs and complaints of bleeding.

Day 4 of treatment: complaints of dysentery have improved. Examination of vital signs within normal limits. The patient is planning to have a repeat colonoscopy the next day. Laboratory results for complete blood Hb 9.4 g/dL, leucocytes 6180/microliter, hematocrit 31.9%, platelets 336,000/microliter, eosinophil 0.9%, basophils 0.2%, neutrophils 78.4%, lymphocytes 15.3%, monocytes 5.2 %. Treatment with sucralfate is administered rectally 10 cc of sucralfate + 10 cc of PZ 3 x 1. Patients temporarily fasting may only drink sugar water, syrup water, or honey water. Two tablets of Dulcolax were also given daily and night, and fleet enemas were given daily and night before a colonoscopy was performed.

Day 6 of treatment: complaints of dysentery are no

longer found. Examination of vital signs in patients within normal limits BP 120/80, pulse 84 x/m, RR 18 x/m, t 36.5 C, SpO2 97%. Complaints of weakness have improved. The results of a colonoscopy examination on March 28, 2018, were as follows: anal canal examination: no fissures or masses were seen; on the rectosigmoid mucosa it looks hyperemic and edematous, looks eroded and bleeds easily when exposed to the tip of the scope; In the descending colon, the mucosa is hyperemic and edematous. Conclusion: radiation colitis. Suggestion: administration of sucralfate per rectal post-defecation.

On the 8th day of treatment, the patient had no complaints. The patient was advised to be consulted by the digestive surgery department for consideration of having a colostomy. Still, the patient and family refused because the patient was elderly. Complete blood laboratory results in Hb 11 g/dL, leucocytes 6830/microliter, hematocrit 37.8%, platelets 342,000/microliter. The patient can be sent home with oral administration of as. tranexamat 3 x 500 mg, omeprazole 2 x 1, sulfasalazine 3 x 1, and sucralfate syr 10 ml + 10 ml PZ rectally after defecation. Patients are advised to control the gastro poly and digestive surgery poly.

DISCUSSION

Cervical cancer is a malignancy that originates from the cervix and is one of the most common cancers among women, the fourth most common after breast, colorectal, and lung cancer. It is estimated that there are around 527,600 new cases of cervical cancer, with 265,700 deaths each year. According to current estimates by the Indonesian Ministry of Health, the number of women with new cervical cancer ranges from 90-100 cases per 100,000 population. Every year, 40 thousand of cases of cervical cancer occur. Cervical cancer spreads by direct extension to the parametrium, vagina, uterus and adjacent organs such as the bladder and rectum. Distant metastases, such as to the lungs, and liver through the hematogenous route, are late phenomena (Bhatla et al., 2018). The following table describes the stages of uterine cervical cancer according to FIGO.

Table 1. Stage of cervical cancer according to FIGO (Bhatia et al, 2018)

Stage	Description
I	The carcinoma is strictly confined to the cervix (extension to the uterine corpus should be disregarded)
IA	Invasive carcinoma that can be diagnosed only by microscopy, with maximum depth of invasion <5 mm[a]
IA1	Measured stromal invasion <3 mm in depth
IA2	Measured stromal invasion ≥3 mm and <5 mm in depth
IB	Invasive carcinoma with measured deepest invasion ≥5 mm (greater than Stage IA), lesion limited to the cervix uteri[b]
IB1	Invasive carcinoma ≥5 mm depth of stromal invasion, and <2 cm in greatest dimension
IB2	Invasive carcinoma ≥2 cm and <4 cm in greatest dimension
IB3	Invasive carcinoma ≥4 cm in greatest dimension
II	The carcinoma invades beyond the uterus, but has not extended onto the lower third of the vagina or to the pelvic wall
IIA	Involvement limited to the upper two-thirds of the vagina without parametrial involvement
IIA1	Invasive carcinoma <4 cm in greatest dimension
IIA2	Invasive carcinoma ≥4 cm in greatest dimension
IIB	With parametrial involvement but not up to the pelvic wall
III	The carcinoma involves the lower third of the vagina and/or extends to the pelvic wall and/or causes hydronephrosis or nonfunctioning kidney and/or involves pelvic and/or para-aortic lymph nodes[c]
IIIA	The carcinoma involves the lower third of the vagina, with no extension to the pelvic wall
IIIB	Extension to the pelvic wall and/or hydronephrosis or nonfunctioning kidney (unless known to be due to another cause)
IIIC	Involvement of pelvic and/or para-aortic lymph nodes, irrespective of tumor size and extent (with r and p notations)[c]
IIIC1	Pelvic lymph node metastasis only
IIIC2	Para-aortic lymph node metastasis
IV	The carcinoma has extended beyond the true pelvis or has involved (biopsy proven) the mucosa of the bladder or rectum. (A bullous edema, as such, does not permit a case to be allotted to Stage IV)
IVA	Spread to adjacent pelvic organs
IVB	Spread to distant organs

Our patient had a history of stage IIB cervical cavities, from the results of pelvic MRI examinations a mass measuring 4.91 x 2.95 x 4.02 cm in the cervix uteri invaded the left parametrium, lower uterine segment.

Cervical cancer therapy is determined based on several factors, including the stage of cancer, the presence of spread of the tumor, the size of the tumor, the patient's age, and the patient's overall health. Recently updated by the National Comprehensive Cancer Network, treatment guidelines cover surgery, radiation, and chemotherapy alone or in combination with other therapies (Johnson et al., 2019). For large lesions (larger than 4 cm) or metastatic cervical cancer, radiation along with chemotherapy is usually the standard of care for primary treatment. Three types of radiotherapy are used to treat cervical cancer: external radiotherapy, intensity-modulated radiotherapy (IMRT), and internal radiotherapy (brachytherapy). The following table describes some of the types of radiation therapy available.

For cervical cancer that has just been diagnosed with stage I-IB2 or higher, cisplatin or cisplatin in combination with fluorouracil can be given with radiotherapy as a radiosensitizer to help the radiation work better. Among chemotherapeutic agents, cisplatin, paclitaxel, and carboplatin have shown the most consistent activity as single agents (Johnson et al., 2019). The following table describes several chemotherapy options in cervical cancer patients.

Table 2. Radiation therapy options for cervical cancer (Johnson et al., 2019)

Type of Radiation	Description	Possible Indication
External beam radiation therapy (EBRT)	The most common type of radiation therapy used for cancer treatment. A machine is used to aim high-energy rays (or beams) from outside the body into the tumor.	Stage IB1 - not surgical candidate, Stage IB2 or higher
Internal radiation therapy implants (brachytherapy)	Also called brachytherapy or seed implantation. It delivers a high dose of radiation directly to the tumor and helps spare nearby tissues. With internal radiation therapy, the oncologist implants or inserts radioactive materials at the site of the tumor.	Stage IB1- not surgical candidate Stage IB2 or higher
Intensity-modulated radiotherapy (IMRT)	An advanced type of radiation therapy used to treat cancer and noncancerous tumors. IMRT uses advanced technology to manipulate photon and proton beams of radiation to conform to the shape of a tumor.	Stage IB1- not surgical candidate Stage IB2 or higher

Table 3. Choice of chemotherapy therapy for cervical cancer (Johnson et al., 2019)

Type of Chemotherapy	Description	Possible Indication
Single Agents	Cisplatin (standard of care), Paclitaxel, and Carboplatin	For newly diagnosed Stage IB2 or higher, usually given concurrent with radiation therapy
Combination regimens	Platinum-based chemotherapy,cisplatin/paclitaxel, carboplatin/paclitaxel, or topotecan/paclitaxel in combination with bevacizumab.	Advanced or recurrent cervical cancer
Palliative Chemotherapy	In addition to skillful use of narcotics, sedatives, and anxiolytics, the judicious use of chemotherapy and radiation therapy, symptom management, as well as emotional and social support for the patient and her family, are mostly recommended.	Palliative or Supportive Care

Our patient received chemotherapy and radiation therapy. The patient initially received 4 times cisplatin chemotherapy and 3 times carbopacli. Then, the patient received 27 times radiation therapy with 2 times internal radiation (brachytherapy) and 25 times external radiation.

At the beginning of the introduction of radiation therapy, it was known to cause skin hyperemesis and burning of skin tissue due to radiation. With the development of supervoltage radiation techniques, skin damage due to radiation no longer occurs, even at higher doses. However, a new problem emerged: the occurrence of deeper tissue damage, including the gastrointestinal tract. In fact, on the other hand, almost 50% of cancer patients receive radiation therapy in their treatment program, either alone or in combination with surgery or chemotherapy (Makmun D, 2015).

Radiation colitis occurs in patients who have undergone radiotherapy to the pelvic area for indications of malignancy, the most common being prostate cancer and gynecological tumors. Radiation colitis clinical manifestations can be divided into acute and chronic symptoms. Acute symptoms may include nausea, vomiting, diarrhea and tenesmus. Generally occurs within 6 weeks after completion of radiation. Bleeding is infrequent in this critical phase. Complaints typically decrease with a reduction in the dose or frequency of radiation administration and disappear within 2-6 months. Chronic symptoms usually occur within the first 2 years after radiation. Generally, 6-9 months after radiation therapy is finished. In some patients, symptoms can even appear after more than 10 years after radiation. Symptoms that arise are usually in the form of hematochezia, diarrhea, colic and tenesmus (Makmun D, 2015). The degree of severity of symptoms depends on the radiation dose received, the surface area of the area being treated and the presence of co-morbidities in the patient, such as diabetes, IBD, vascular disease, and malnutrition (Henderson and Mendenhall, 2014).

Our patient with a history of cervical cancer received chemotherapy and radiation therapy. Almost 1 year after receiving radiation therapy, the patient was routinely admitted to the hospital every 2-3 months with the same complaint, namely red blood clotted stools, until the patient received a red blood transfusion. Based on the presence of complaints of rectal bleeding with a history of radiation therapy in the pelvic area experienced by the patient leads to a picture of chronic radiation colitis (CRP).

Persistent radiation colitis is characterized by obliterative endarteritis, chronic mucosal ischemia, submucosal fibrosis, and the development of new blood vessels, all of which have been linked to clinical symptoms (Leiper and Morris, 2007). At the beginning of the course of radiation therapy, changes can occur in the network. Initial microscopic examination found loss of mucosal cells and distortion of vascular endothelial cells. The next stage of injury can be acute inflammation of the lamina propria, swelling of the endothelium of the arterioles and formation of eosinophilic crypt abscesses (Wong et al., 2010). Other changes include neovascularization and dilatation of small vessels. In heavily affected areas, progressive fibrosis of the connective tissue and tissue ischemia can occur, leading to mucosal fragility, ulcers, strictures and fistulas (Bansal et al., 2016). On colonoscopy examination can be found telangiectasia, edema, ulcers, strictures and even fistulas; the mucosa is stiff and bleeds easily (Makmun D, 2015).

I*n our patient, a colonoscopy was performed with the following results: anal canal examination: no fissures or masses were seen; on the rectosigmoid mucosa it looks hyperemic and edematous, looks eroded and bleeds easily when exposed to the tip of the scope; In the descending colon, the mucosa is hyperemic and edematous. Conclusion: radiation colitis. Patients are advised to administer sucralfate rectally after defecation.*

Various scoring systems have been used to classify the severity of radiation colitis. None of these various scoring systems is universally accepted for assessing the severity of radiation colitis (Henderson and Mendenhall, 2014). One that is widely used is the criteria according to the Radiation Therapy Oncology Group, which divides the degree of severity of radiation colitis into 4 degrees of severity of radiation colitis using the Radiation Therapy Oncology Group scoring criteria (Sarin and Safar, 2013). The following table describes the assessment criteria.

Table 4. The degree of severity of radiation colitis based on the Radiation Therapy Oncology Group (Sarin and Safar, 2013).

Grade 1	Mild and self-limiting	Minimal, infrequent bleeding or clear mucus discharge, rectal discomfort not requiring analgesics, loose stools not requiring medications
Grade 2	Managed conservatively, lifestyle (performance status) not affected	Intermittent rectal bleeding not requiring regular use of pads, erythema of rectal lining on proctoscopy, diarrhea requiring medications
Grade 3	Severe, alters patient lifestyle	Rectal bleeding requiring regular use of pads and minor surgical intervention, rectal pain requiring narcotics, rectal ulceration
Grade 4	Life threatening and disabling	Bowel obstruction, fistula formation, bleeding requiring hospitalization, surgical intervention required

The patient experiences recurrent bleeding so that every 2-3 months the patient is routinely admitted to the hospital for blood transfusions. The patient was planned to have a colostomy performed, but the patient and family refused on the grounds of the patient's advanced age. Based on the Radiation Therapy Oncology Group, the symptoms shown by the patient can be predicted that the patient has grade IV radiation colitis.

There is no standard treatment for chronic radiation colitis. However, many treatment options are available, such as aminosalicylates, butyric acid enemas, steroid enemas, formalin, argon plasma coagulation (APC), hyperbaric oxygen, radiofrequency ablation and even surgical therapy (Ramakrishnaiah and Krishnamachari, 2016). It is difficult to recommend evidence-based therapy. No studies are sufficiently supportive, and most of the data is uncontrolled. There were no standard evaluation tools available (including endoscopic assessment, symptom scores and quality of life), an adequate description of previous doses of radiotherapy or adequate follow-up in most studies (Leiper and Morris, 2007). Interventions can generally be categorized into medical therapy, endoscopic therapy, and surgical intervention (Vanneste et al., 2015).

In patients with chronic radiation colitis, treatment should be based on the pattern and severity of symptoms and experience in the treatment center. The following shows the management algorithm for chronic radiation colitis.

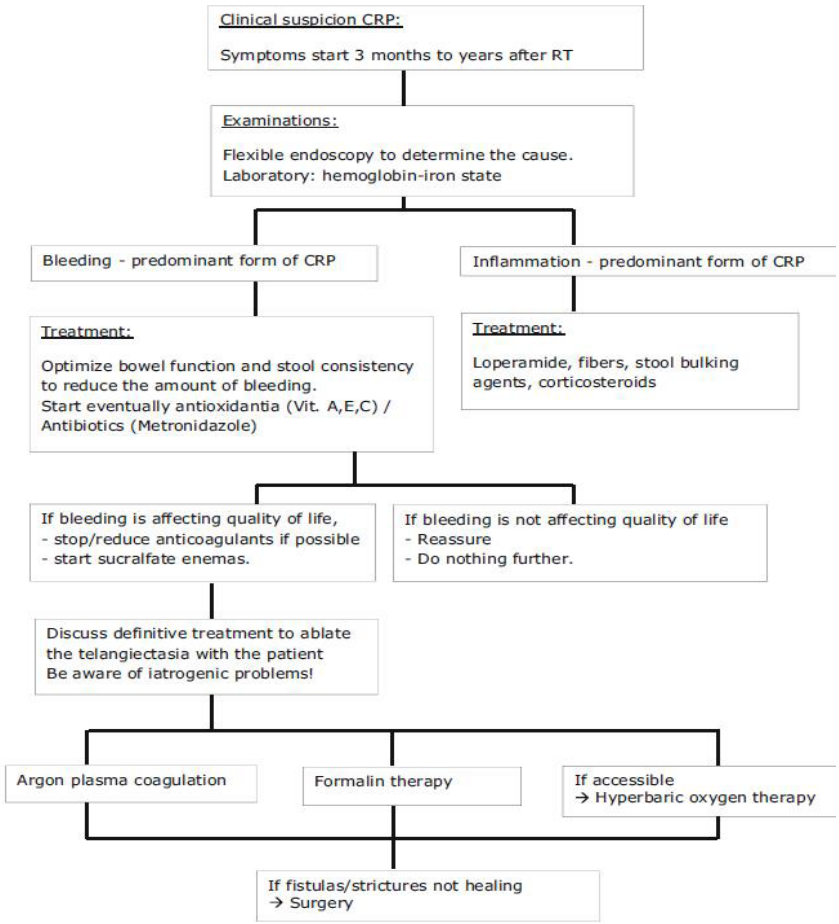

Figure 1. Algorithm for the management of chronic radiation colitis (Vanneste et al., 2015).

No treatment may be indicated in patients with minor symptoms that do not affect their quality of life because CRP may improve over time without treatment. In patients with inflammation predominant form (I-CRP), Andreyev et al. published a treatment guide recommending loperamide, fiber, stool bulking agents, and corticosteroids. Patients with bleeding predominant form (B-CRP) and physical complaints of anemia should be monitored for anemia and, if necessary, given iron supplements or blood transfusions. Endoscopic treatment is also indicated (Vanneste et al., 2015).

In our patient, the predominant symptom was anemia, with physical symptoms such as weakness and headache. The patient has also received a blood transfusion to treat anemia.

Medical treatments with evidence of level I benefit in small randomized trials include sucralfate enemas, metronidazole, vitamin A, and hyperbaric oxygen therapy. Sucralfate is an aluminum salt that attaches to mucosal cells, stimulates prostaglandins' production, and produces a cytoprotective effect. In a prospective randomized trial, Kochhar et al. reported 37 patients with radiotherapy-induced CRP who received sulfasalazine (3 g/day) plus prednisolone enema (20 mg twice/day) or sucralfate enema (2 g twice/day). Kochhar et al. reported on a prospective study of 26 patients with moderate to severe CRP treated with sucralfate enemas 20 ml twice daily until the bleeding stopped or treatment failed. The response to therapy is considered good when the severity of bleeding improves by two levels (Ramakrishnaiah and Krishnamachari, 2016).

Our patient received inj omeprazole 2 x 40 mg, inj. tranexamic acid 3 x 500 mg, sulfasalazine 3 x 1, and sucralfate syr 10 ml + 10 ml PZ rectally post defecation. Complaints of bloody bowel movements in patients are improving.

Surgery is the last resort for use when there are severe complications, such as refractory bleeding, strictures causing intestinal obstruction, or sepsis. Approximately 10% - 25% of CRP patients eventually require surgery (Ramakrishnaiah and Krishnamachari, 2016). Surgery can range from simple proximal diversion to formal resection with or without anastomosis. If correctly indicated, surgery can provide effective benefits (Bansal et al., 2016). However, studies report an increased risk of complications (15% -80%) and death (3% - 9%) in patients receiving surgical treatment (Ramakrishnaiah and Krishnamachari, 2016).

In our patient, there was recurrent bleeding which caused the patient to be hospitalized frequently to receive blood transfusions. The patient received sucralfate therapy given rectally in combination with oral sulfasalazine. The patient's bleeding improved, and we considered the patient for a colostomy, but the patient and family refused because the patient was elderly. We finally sent the patient home with oral administration of as. tranexamat 3 x 500 mg, omeprazole 2 x 1, sulfasalazine 3 x 1, and sucralfate syr 10 ml + 10 ml PZ rectally after defecation. Patients are advised to control the gastro poly and digestive surgery poly.

SUMMARY

A 61-year-old female patient was reported with complaints of red blood chapters since about 3 days of hospitalization. The patient had previously been in and out of the hospital frequently because of the same complaint. Since December 2016, patients have been hospitalized every 2-3 months because of red blood chapters and weakness. Previously, in April 2015, it was found to have cervical cancer, and chemotherapy and radiation were carried out until early 2016. From the physical examination, the patient appeared weak and pale. The patient experienced this several years ago. The patient received PRC blood transfusion therapy and rectal fat therapy combined with oral sulfasalazine 3 x 1. The patient had been advised to undergo surgery in the form of a colostomy to prevent recurrent bleeding, but the patient and family refused, considering the patient's age. Already advanced and wish to continue non-surgical treatment.

Management of patients with radiation colitis is still a problem. There are no definite and consistent guidelines for the treatment of radiation colitis. In general, the management of radiation colitis is divided into 3 categories: medical therapy, endoscopic therapy, and surgical therapy. In this patient's case, medical therapy was recently carried out, including rectal administration of sucralfate and oral sulfasalazine. The patient was planning to undergo surgical therapy, but the patient and family still refused. It is necessary to think about endoscopic therapy in patients. Argon plasma coagulation (APC) has become the most widely used first-line endoscopic therapy.

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CONFLICT OF INTEREST

The authors declare there is no conflict of interest.

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AUTHOR CONTRIBUTION

All author have contributed to all process in this research, including preparation, data gathering and analysis, drafting and approval for publication of this manuscript.

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