Colorectal stenting for obstruction due to retrorectal tumor in a patient unsuitable for surgery

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ABSTRACT

Fund of knowledge on palliative treatment of unresectable retrorectal tumors is scare. Here, we reported a non-surgical treatment of a huge retrorectal malignant tumor in an aged and debilitated patient complicated with colorectal obstruction. An 86-year-old male with severe comorbidities was admitted with acute colorectal obstruction owing to an untreated retrorectal malign epithelial tumor. There was a lobulated retrorectal mass, 20 cm × 15 cm at largest size, extending to the superior iliac bifurcation level, caused an obstruction of the rectal lumen. He was not suitable for surgical excision because of the severe comorbidities. Rectal obstruction was palliated by two self-expandable metallic stents. He tolerated the procedures well and post-procedural course was uneventful. After four months, stents were patent and the patient was continent. Stenting for colorectal obstruction owing to a retrorectal tumor can be feasible in patients who are not suitable for surgery (aged, debilitated, advanced tumor). It avoided the surgical trauma to a high-risk patient and ensured the continuity of continence. As far as we know, this was the first report on colorectal stenting for a retrorectal tumor.

Key words: Presacral tumor, intestinal obstruction, palliative treatment, stent, rectum, colon

INTRODUCTION

Retrorectal (presacral) tumors are rare pathologies with several histological types. They are usually diagnosed at the fourth to fifth decades of the life and two times more likely in female. [1,2] When diagnosed, surgical removal of the tumor is the mainstay of the treatment. Histological types and surgical resection options (anterior, posterior, or combined) and their effects on the tumor recurrence create the current titles of the retrorectal tumors.^[1,2] However, there is not much information in the literature regarding the treatment options in patients who are not suitable for surgery. Here, we reported a non-surgical treatment of a huge retrorectal malignant tumor in an aged and debilitated patient complicated with colorectal obstruction.

CASE PRESENTATION

An 86-year-old male was admitted to emergency room with complaints of abdominal pain, swelling, and constipation. He had a previous history of severe heart failure. He was debilitated and cannot mobilize too much. He had generalized abdominal tenderness and distention at physical examination. On rectal examination, external compression of a mass felt at the posterior wall of the rectum. Laboratory findings were normal except mildly elevated white blood cell counts and hypoalbuminemia. Cardiothoracic index was found to be increased at chest X-ray, and there was colonic dilatation on the plain abdominal X-ray. Abdominal organs cannot be evaluated by ultrasound because of extensive colonic gas. At computed tomography, there was a lobulated retrorectal mass, 20 cm × 15 cm at largest size, extending to the superior iliac bifurcation level, caused an obstruction of the rectal lumen (Figure 1). His relatives have indicated that he was diagnosed with retrorectal mass two years ago at another center and a tru-cut biopsy revealed malign

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epithelial tumor. Because of high operative risk owing to congestive heart failure and advanced age, patient and his relatives did not give consent for surgery. At first, a 30F rectal tube was placed to exceed the stenosis for palliation of the colorectal obstruction under the guidance of colonoscopy. The patient was discussed in multidisciplinary oncology meeting and a non-operative palliative decompression was planned. An arterial embolization to slow the tumor growth was planned as well. Two self-expandable metallic stents (28 mm × 100 mm and 30 mm × 100 mm) were placed to exceed the upper limit of the obstructing mass



Figure 1: Retrorectal mass, $20 \text{ cm} \times 15 \text{ cm}$ at largest size, extending to the superior iliac bifurcation level, caused an obstruction of the rectal lumen.



Figure 2: Two self-expandable metallic stents were placed to exceed the upper limit of the obstructing mass.

(Figure 2), also the main feeding arteries originated from the left internal iliac artery of the lesion was embolized by electrically detachable coils (Microsphere, JJ USA) with an intend to decrease the diameter of the mass. He tolerated the procedures well and post-procedural course was uneventful. He was continent and discharged on day 7. After four months, two stents were patent and the patient had continence (Figure 3).

DISCUSSION

Here, we reported a non-surgical treatment of a huge retrorectal malignant tumor in an aged and debilitated patient complicated with colorectal obstruction. As far as we know, this was the first report on colorectal stenting for a retrorectal tumor. Because of the possibility of growth and risk of malignancy, retrorectal masses are removed even if they are small or asymptomatic. Literature on retrorectal masses is replete with the histopathological types of these tumors and the types of surgical resection approaches. However, these tumors are not always suitable for resection, and interestingly, there is little data on the unresectable cases. In a series by Jao, 18 of 120 (15%) of the retrorectal tumors were found as not suitable for surgical resection.[3] These authors did not mention the destiny of these unresectable cases. The treatment of retrorectal tumors are affected by age, gender, comorbidities of the patients, and tumor characteristics. With increasing age, the

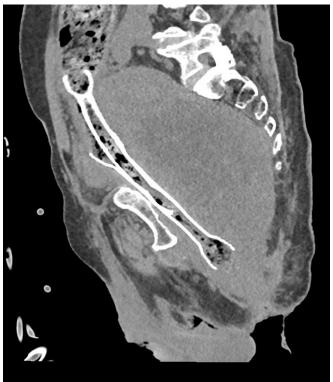


Figure 3: After four months, two stents were patent.

risk of malignancy, the size of tumor, and comorbidities of the patients correspondingly increase. [4] Resections of retrorectal tumors in octogenarian were rarely reported. [2-4] Men have a higher risk of malignancy for retrorectal masses and surgery of retrorectal tumors is more difficult in men because of their narrower pelvis.^[4] The mean size of the resectable retrorectal tumors were published as 9.2 ± 4.3 cm.^[5] When the size of the tumor exceeded to 10 cm, a higher risk of surgical morbidity has been reported [6] The resected largest size of a retrorectal tumor was $18 \text{ cm} \times 15 \text{ cm}$, which was notified by MacAfee et al., and it has been stated that tumors invading sacrum above the S1 or S2 level, involvement of sciatic notch, or pelvic sidewall were the criteria for unsuitability of the surgical resections.[7] In our case, the size of the malignant tumor was more than 20 cm and reached to L4 level, and the patient was an 84 year-old male with severe comorbidities. Our patient had all these high-risk factors for a surgical resection.

In patients who are not suitable for surgical resection, chemotherapy, radiotherapy, or angiographic embolization can be feasible treatment options. In our patient, we used only the angiographic embolization for palliation but we did not observe any reduction in size of the tumor. Our patient and his relatives did not accept chemotherapy or radiotherapy. Rectal obstruction in patients who are not suitable for respective surgery is a challenging issue, and a sigmoid loop colostomy is a reasonable method for the palliation of the distal obstruction. Main drawbacks of sigmoid colostomy are the stoma itself, surgical requirement, and incontinence. Colorectal stent implementation eliminates the surgical intervention and stoma and ensures the continuity of continence.

Rectal stents can be used for different indications such as rectal anastomotic strictures and palliation of an unresectable rectal cancer. [8,9] They can be used for the treatment of rectovesical and rectovaginal fistulas. [10] Rectal stents had also been experienced successfully in some extreme situations such as rectal obstruction owing to a metastatic gastric or breast cancer. [11,12] A rectal stenosis associated with local invasion of a prostate cancer was reported to be treated by a rectal stent. [13] Also, Ozer *et al.* reported [14] a patient with severe pelvic injury and blunt rectal perforation caused by explosion, and they treated him with a covered rectal stent. All these published patients lived stoma free and with continence.

CONCLUSION

Stenting for colorectal obstruction owing to retrorectal tumors can be a feasible option in patients who are not suitable for surgery (aged, debilitated, advanced tumor). It provides continence and avoids surgical trauma in highrisk patients.

Conflict of Interest

None declared.

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