

# Conservative Management of Passage of A Nearly Total Colonic Cast: Report of A Case

## *Total Yakın Kolonik Kast Pasajının Konservatif Yönetimi: Bir Olgu Sunumu*

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### ÖZET

Hiç bir akut peritonit bulgusu olmaksızın mukozal kolonik kast pasajı insidansı çok düşüktür ve kalın barsak iskemisini yansımaktadır. Literatürde transanal kolonik kast pasajı bozulmuş perfüzyona bağlı olarak ilk sırada aortik cerrahi ile ilişkilendirilmektedir. Greft versus host hastalığının gastrointestinal sistem komplikasyonu, bevacizumab tedavisinin yan etkisi diğer nedenlerindendir. Bu çalışmanın amacı kast pasajı sebebinin kolorektal cerrahi sonrası IMA'nın (inferior mezenterik arter) yüksek ligasyonu olduğu bu sıradışı durumla ilgili tecrübeimizi paylaşmaktadır.

### ABSTRACT

Stomal passage of a mucosal colonic cast without any features of acute peritonitis is a very rare incidence and reflects ischemia of large bowel. In the literature concerning transanal passage of a colonic cast, aortic surgery occupies by far the first range due to impaired perfusion. Gastrointestinal system complication of graft versus host disease, side-effect of bevacizumab treatment are other causes. Aim of this study is to share our experience about this extra-ordinary situation that cause of the cast passage is high ligation of IMA (inferior mesenteric artery) after colorectal surgery.

**Anahtar Kelimeler:** Cerrahi, Kolorektal, Sskemik kolit

**Key words:** Surgery, Colorectal, Ischemic colitis

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### Introduction

Stomal passage of a mucosal colonic cast without any features of acute peritonitis is a very rare incidence. Passage of only inner layers of large bowel reflects less severe ischemia.<sup>1</sup> We present a patient with nearly total colonic cast who underwent Hartmann's procedure for rectal cancer invading urinary bladder.

### Case Report

A 54-year-old male was admitted with an obstructing rectal mass 12cm proximal to the anal verge. Computed tomography scan showed a rectal mass invading urinary bladder. Then patient underwent Hartmann's procedure for rectal mass since an anastomosis did not favor safe. High ligation of IMA was also performed. Partial cystectomy and cystostomy was added to resection for urinary bladder invasion. Pathological examination revealed T4N0 adenocarcinoma of the rectum. Patient was discharged on postoperative day 11 without any problem. Patient underwent concomitant radiochemotherapy after surgery. Seven months after the first operation Hartmann reversal attempt failed due to generalised intraabdominal fibrosis. Two years following surgery, the patient admitted to our clinic describing colonic cast throughout the stoma. On examination nearly total colonic cast was identified per stoma(figure 1). However, no further treatment was needed. In colonoscopic examination by the end of first following cast passage, there was no pathologic finding. Histopathology confirmed the specimen to be a necrotic segment of colon with infarcted mucosa and submucosa. He was discharged after an uneventful hospitalization period.

### Discussion

The passage of a "full thickness cast" infarcted segment of bowel is a rare complication of acute colonic ischemia.<sup>1</sup> Acute colonic ischemia and passage of colonic cast may seen after abdominal aorta aneurysm surgery or endovascular stenting due to impaired perfusion.<sup>2</sup> In the literature concerning transanal passage of a colonic cast, aortic surgery occupies by far the first range.<sup>3</sup> Also it is reported as a gastrointestinal system complication of graft versus host disease.<sup>4</sup>



*Figure 1. The view of the total cast.*

Bevacizumab is a humanized monoclonal antibody that targets the VEGF (vascular endothelial growth factor) molecule, used for enhancing the effectiveness of chemotherapy for the treatment of metastatic colorectal cancer. Serious adverse events associated with bevacizumab include bowel ischemia, gastrointestinal perforation, wound healing complications, hemorrhage, and arterial thromboembolic events.<sup>5</sup> Bevacizumab treatment may cause colonic cast passage; however, our patient did not receive bevacizumab.

Highly ligation of IMA may result in vascular impairment at the splenic flexure. This critical point may be vulnerable to low perfusion state, particularly in occlusive vascular impairment of the left colon, both in spontaneous instances (atherosclerosis and thrombo-embolic disorders) and after surgical ligations of the IMA.<sup>1-3</sup> It is likely that in our patient the cause of the ischemia was highly ligation of IMA.

In conclusion, the spontaneous passage of a colon cast is a rare manifestation of acute colonic ischemia. This phenomenon is reported in association with aneurysm surgery, bevacizumab therapy but also in the postoperative course of colorectal surgery when IMA is ligated. In these cases, even if conservative treatment is feasible, the definitive treatment is surgical with favorable outcome.

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