

# Hypertensive Attack with Bleeding in the Anastomosis Line After Laparoscopic Colon Resection

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### Özet:

Laparoskopik kolon cerrahisi giderek kullanımı artan açık cerrahi operasyona göre daha az invaziv olan bir yöntemdir. Ameliyat sonu devrede ağrının daha az olması, erken dönemde barsak aktivitesinin yerine gelmesi, hastanın iyileşme sürecinin daha erken olması gibi birçok avantajı içermektedir. Laparoskopik kolon cerrahisinde de komplikasyonlar meydana gelebilmektedir. Henüz geniş serilerin oluşturulamadığı günümüzde olgu sunumları bu konuda literatüre yardımcı olmaktadır. Olgumuzda postoperatif dönemde hipertansif atak gelişmiş ve buna bağlı intraperitoneal ve rektal kanama gelişmiştir. Replasman tedavisi ile tedavi ettiğimiz olgumuz sunulmuştur.

Anahtar kelimeler: kolon, kanser, laparoskopi, kolektomi, rektum

#### Abstract:

Laparoscopic colon surgery is a method that is less invasive than open surgery, which is increasingly being used. It includes many advantages such as less pain in the post-operative period, restoration of bowel activity in the early period, and earlier recovery of the patient. Complications can also occur in laparoscopic colon surgery. Case reports help the literature on this subject today, where large series have not yet been established. In our case, a hypertensive attack developed in the postoperative period and intraperitoneal and rectal bleeding developed due to this. We present our case who responded to medical treatment.

Keywords: colon, cancer, laparoscopy, colectomy, rectum

#### Case:

Our case is a 70-year-old male patient. Colonoscopy was performed in our patient, who came with the complaint of constipation and weight loss, and a tumoral mass was detected in the sigmoid colon that surrounded the lumen, which made it difficult to pass the colonoscope. A diagnosis of adeno Ca was made in the biopsy, and the examinations (PET CT, Whole abdominal CT) revealed that the cancer was limited to the sigmoid colon. Ureteral invasion and peripheral organ invasion were not detected. The patient was given detailed information about open and laparoscopic surgery. The patient and his relatives consulted other centers and decided on laparoscopic surgery.

After intubation of the patient under intratracheal general anesthesia with rapid intubation, the abdomen was entered with the 5-way trocar system, and the inferior mesenteric artery and vein were clipped and cut from the origin points. The splenic flexure was released. The resection was completed within the framework of oncological rules, the ureters were preserved, and intraperitoneal anastomosis and protective ileostomy were performed after the resection. Stable findings were detected in the blood pressure and urine output arterial blood gas follow-ups during the operation, and the blood pressure was 130/70 mmHg. Before the end of the operation, the abdomen was washed with SF and it was determined that there was no active bleeding. Finally, saline was administered rectally and leak test was performed, and the given liquid was withdrawn rectally as clear.

The patient who woke up at the end of the operation was taken to the intensive care unit after being kept under observation in the operating room for a while. In the first period of intensive care follow-ups, the patient's blood pressure was stable, and there was no drainage from the drains. In the blood pressure follow-ups, a hypertensive attack approaching 220/90 mmHg levels developed in the first hour, and after the attack, hemorrhagic fluid started to come from the abdominal drains and defecation containing fresh blood developed. Intraperitoneal and intracolonic bleeding that developed after this hypertensive attack was followed up with replacement therapy, and clinical improvement was observed after 24 hours and the hemogram values were stabilized. Our patient, who did not develop any complications in his later follow-ups, was discharged with good health.

#### Discussion

The development of vascular occlusive devices has led to the advancement of laparoscopic surgery and its use has become increasingly widespread<sup>3</sup>. Likewise, the introduction of staplers into laparoscopic use has made intraperitoneal anastomoses easier. In parallel with the frequent

occurrence of colon cancer and these developments in technology, laparoscopic operations in colorectal surgery have come to the fore. Because laparoscopic operations are less invasive and less traumatizing than open surgery, laparoscopic colorectal surgery is gaining more acceptance among both patients and surgeons, and the number of applications is increasing.

If we remember the beginning years of laparoscopic cholecystectomy applications, laparoscopic surgery is now accepted as the gold standard in cholecystectomy and open cholecystectomy is not applied primarily today. It can be predicted that the same process will develop in laparoscopic colon surgery.

Since laparoscopic colon resection cannot be performed as a standard today, large series have not been established yet. We think that the accumulation of case reports in the literature in order to create large series information will accompany positive results in terms of knowledge accumulation.

Various complications may develop after laparoscopic colon surgery<sup>4,5,6</sup>. Among them, complications that can be seen due to untreated postoperative hypertension can be counted as myocardial ischemia, myocardial infarction, arrhythmia, pulmonary edema, stroke, and surgical site bleeding<sup>7</sup>.

Postoperative surgical bleeding can be treated with medical or surgical methods. Surgical methods may be the first choice in major bleeding. If the general condition and stability of the patient are appropriate, medical follow-up and treatment may be at the forefront. In our case, surgical site bleeding developed after a hypertensive attack. Since the general condition of our case was good, blood pressure and pulse were stable, medical treatment was applied. Considering the deficits, replacement therapy was performed. Rectal bleeding gradually decreased in the clinically observed patient. The positive response of the hemogram values to the replacement therapy led to the continuation of the treatment. Bleeding regressed spontaneously with medical follow-up and treatment.

As a result, close monitoring of blood pressure in the postoperative period and prevention of hypertensive attacks whenever possible reduces the risk of postoperative bleeding. When bleeding develops, the treatment method to be chosen should be chosen according to the patient's general condition and hemodynamic stability.

#### References

1. Arnaldo M.R., Esteban M, Antonella DG, Idalina DBM, Pamela PSC. Prevalence of colon cancer and its surgical treatment in a high-complexity hospital from january 2017 to december 2018. Cir. Parag, 2019, 10-13.

- 2. Portale, G., Pedon, S., Benacchio, L. et al.. Two-dimensional (2-D) vs. three-dimensional (3-D) laparoscopic right hemicolectomy with intracorporeal anastomosis for colon cancer: comparison of short-term results. Surgical Endoscopy, 2020, 1-8.
- 3. Hutchens, T. C., Giglio, N. C., Cilip et al. Novel Optical Linear Beam Shaping Designs for use in Laparoscopic Laser Sealing of Vascular Tissues. In: 2020 42nd Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC). IEEE, 2020. p. 5049-5052.
- 4. Sujatha-Bhaskar, S., Alizadeh, R. F., Inaba, C. S., et al. Respiratory complications after colonic procedures in chronic obstructive pulmonary disease: does laparoscopy offer a benefit?. Surgical endoscopy, 2018, 32.3: 1280-1285.
- 5. Mungo, B., Papageorge, C. M., Stem, M.et al. The Impact of operative approach on postoperative complications following colectomy for colon caner. World journal of surgery, 2017, 41.8: 2143-2152.
- 6. Kothari, P., Congiusta, D. V., Merchant, A. M. Laparoscopic versus open colectomy: the impact of frailty on outcomes. Updates in surgery, 2019, 71.1: 89-96.
- 7. Sessler, D. I., Bloomstone, J. A., Aronson, S. et al. Perioperative Quality Initiative consensus statement on postoperative blood pressure, risk and outcomes for elective surgery. British journal of anaesthesia, 2019, 122.5: 575-586.