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CASE REPORT

Postoperative Chylous Ascites After Right Hemicolectomy

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ABSTRACT

Right hemicolectomy is a frequently performed abdominal procedure for benign and usually malign diseases of colon. Here, we aimed to report a rare complication of right hemicolectomy. A 76 years old female with right-sided colonic cancer was operated for a bulky tumor with enlarged mesenteric lymph nodes. We performed a right hemicolectomy with mesocolic lymph node dissection. In the early postoperative period, large amount of drainage through the abdominal drain was seen. After oral intake, the color of the abdominal drain fluid changed to chylous (milky). She was treated by oral cessation, total parenteral nutrition and somatostatin. The drainage decreased gradually and completely stopped after five days of the treatment. Oral feeding was started again and the drainage was checked for several days. There was no more drainage and the abdominal drain was removed. She stayed in hospital for 10 days. After that she was uneventful. This report highlights an unexpected rare complication after right hemicolectomy.

Key words: *Chylous ascites, colorectal cancer, treatment, postoperative complications*

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ÖZET

Sağ Hemikolektomi Sonrası Görülen Şilöz Asit

Sağ hemikolektomi, kolonun benign ve genellikle de malign hastalıkları için sıklıkla kullanılan bir yöntemdir. Burada biz sağ hemikolektominin nadir bir komplikasyonunu sunmayı amaçladık. Sağ kolonda genişlemiş lenf nodları ile birlikte büyük bir tümörü olan 76 yaşında kadın hastayı ameliyat ettik. Mezokolik lenf nodu diseksiyonu ile birlikte sağ hemikolektomi prosedürü uygulandı. Postoperatif erken dönemde abdominal drenden fazla miktarda drenaj olduğu gözlemlendi. Oral verilmeye başlandıktan sonra abdominal dren içeriği süt benzeri şilöz karaktere döndü. Hasta oral kapatılarak total parenteral nütrisyon ve somatostatin desteği ile tedavi edildi. Dren getirisi kademeli olarak azaldı ve tedavinin beşinci gününde tamamen kesildi. Oral olarak beslemeye tekrar başlandı ve dren getirisi günlük takip edildi. Daha fazla getirisi olmayınca dren çekildi. Hasta hastanede yaklaşık 10 gün kaldı. Bu sunum sağ hemikolektomi sonrası beklenmeyen nadir bir komplikasyonu vurgulamaktadır.

Anahtar kelimeler: *Şilöz asit, kolorektal kanser, tedavi, postoperatif komplikasyonlar*

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INTRODUCTION

Chylous ascites is defined as noninfectious extravasation of milky or creamy fluid rich in triglycerides. Postoperative chylous ascites is most frequently reported after lymphadenectomy for gynecologic cancers, renal cancers and testicular cancers. Normally chylous ascites after colorectal surgery is rare. Because of its rarity, its etiology and treatment after colorectal surgery have not documented very well. Here, we presented a case of chylous ascites after open right hemicolectomy for cancer.

CASE REPORT

A 76 years old female admitted for abdominal pain and constipation. She has no previous surgery or significant disease. Abdominal ultrasound and computed tomography demonstrated a colonic mass in the hepatic flexura. Colonoscopy and endoscopic biopsy confirmed the mass as adenocarcinoma. Her preoperative routine examinations were with in normal limits. The size of the tumor at computed tomography was measured as 10 cm in diameter. There were large lymph nodes in the colonic mesenterium. Because of the bulky tumor, we planned an open right hemicolectomy. At laparotomy, a right colonic tumor with enlarged lymph nodes on superior mesenteric artery route and colonic mesenterium was detected. An extended right hemicolectomywith total mesocoloniclymph node dissection was performed. Mesenteric division was made by Ligasure vessel sealing system (Covidien). Ileocolic anastomosis was done hand-sewn as end-to-side. We placed an abdominal drain to the right paracolic area. After surgery vital findings and abdominal examinations were uneventful. But the abdominal drainage amount was 10 mL/per day. When we started oral intake, the color of drainage fluid turned to whitish like milky. We thought it could be a chylous drainage and its amount was 150 mL/per day. Analyzed fluid demonstrated lymphatic content and we stopped oral intake.

When oral intake was ceased, the amount of drainage decreased and the white color returned to serous again. At the time of the development of chylous ascites, there were no signs like fever or leukocytosis. We started total parenteral nutrition with infusion of somatostatin (0.23 mg per hour). On the fourth day of treatment, the amount of drainage decreased significantly, it stopped on day five and oral intake was started again. There was no cyhlous drainage again and we removed the abdominal drain. She stayed in hospital totally ten days and discharged uneventfully. Pathological examination revealed a 10 x 7 cm tumor invading serosa. Twenty-one of 28 dissected lymph nodes were metastatic. She was consulted with medical oncology department.

DISCUSSION

The definition of chylous ascites is fluid that is lipid content greater than that of plasma and that is protein content more than half that of plasma[1]. Various abdominal surgery may cause chylous ascites[2,3]. There was very rare case reports related with chylous ascites after colorectal surgery[1,2,4-6]. It seems that chylous ascites after colorectal surgerycan be the result of dissection around vena cava and paraaortic lymphatic vessel. It was reported with a higher frequency rate in patients with the tumors that wasfed closely by the superior mesenteric artery[3,5]. Large lymphatics can be another risk factor as well. In any case, it is not easy to predict the postoperative chylous ascites after colorectal surgery. On the other hand, when expected a postoperative chylous ascites, preventive methods during surgery are not clear. Our previous study on liver transplant patients was also pointed out the use of vessel sealing apparatus as a risk factor of postoperative chylous complications[7]. Possibly ligation instead of sealing at risky areas such as mesenteric roots or aorta caval areas can decrease the incidence of postoperative chylous complications.

Diagnosis is not difficult but at first, it should be in mind even after an unexpected surgery like right hemicolectomy. Typical color of the abdominal drainage and color change with oral intake and cessation is demonstrative. If the diagnosis is precise, first line treatment should be conservative. Conservative treatment includes dietary restriction, ranging from exclusion of long-chain triacylglycerolsto complete interruption of oral feeding with the use of total parenteral nutrition, administration of somatostatin or octreotide, and use of diuretics to decrease lymph formation. The use of a high-protein, low-fat oral diet (rich in medium-chain triacilglycerols) is the simplest approach. If this easiest method works, treatment does not even require hospitalization. Home therapy with every day measurements of drainage amount without parenteral treatment can be a safe and feasible way. If oral or enteral feeding does not control the chylous leakage, total parenteral nutrition and addition of somatostatinanalogues such as octreotidecan be necessary. It is well known that most cases are resolved without requirement of surgery[1-6, 8-10]. Our patient was treated by oral cessation and total paren-

teral nutrition including medium-chain triacilglycerols and high protein. We also added somatostatin and the leakage decreased gradually and stopped on the fifth day of treatment.

Although it is rare, chylous leakage can occur after right hemicolectomy. Diagnosis is not difficult and the treatment modality is not different from the mainstay treatment of cyholus ascites. It results with prolonged hospital stays.

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