Reanastomosis with Stapler in Duodenojejunal Junction Anastomosis Leakage: A Case Report

Duodenojejunal Bileşke Anastomoz Kaçağında Stapler ile Reanastomoz: Vaka Sunumu

Anastomoz Kaçağında Stapler ile Reanastomoz / Reanastomosis with Stapler in Anastomosis Leakage

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Özet

Anastomoz kaçakları sonrası hasta tedavisi zorlaşmakta ve mortalite oranları artmaktadır. Gastrointestinal sistemin aşağı seviyelerindeki anastomoz kaçaklarında daima bir ostomi alternatifi var olduğu için beslenme ile ilgili komplikasyonlar az görülmektedir. Üst gastrointestinal sistem anastomoz kaçaklarında ise hastanın beslenme durumu göz önüne alındığında anastomoz yapma gerekliliği artmaktadır. Bu nedenle mortalite oranları da artmaktadır. Bu makalede, duodenojejunal bileşke anastomoz kaçağı olan bir hastanın tedavisinde uyguladığımız farklı bir reanastomoz tekniğini sunmayı amaçladık.

Anahtar Kelimeler

Anastomoz; Kaçak; Reanastomoz

Abstract

After anastomosis leakages, treatment of patient gets more difficult and mortality rates increase. At lower level gastrointestinal anastomosis leakages, because of always there is an ostomy alternative, digestion problems are seen lesser. But at upper level gastrointestinal system anastomosis leakages, when it is taken account of nutrient condition of patient, requirement of making anastomos increases. So moratlity rates increase. At this article we aimed to present a different technique that we administered on management of a patient who had duodenojejunal junction anastomosis leakage.

Keywords

Anastomosis; Leakage; Reanastomosis

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Introduction

Anastomotic Leakage is one of most serious complications seen after gastrointestinal surgery. Risk factors for anastomotic leakage are manifested in various studies. These risks may be listed as male sex [1], urgent surgery [1], smoking and alcohol [2], The American Society of Anesthesiologists (ASA) score [3], obesity [4], prolonged surgery time [3], low albumin level [5], increased intraoperative blood loss [5] and use of vasopressors [6]. We aimed to present a different procedure on a patient who was referred to our clinic because of leakage occurred two times after the anastomosis which made for full-thickness intestinal injury on duodenojejunal junction at Ligament of Treitz level.

Case Report

27 years old male patient was operated because of shrapnel injury after bomb explosion in Syria and full-thickness injury on duodenojejunal junction was repaired primerly. Patient who was reoperated because of anastomosis leakage at postoperative 7th day was referred to our clinic because of leakage of second anastomosis too. Patient was operated after necessary resusitations. At abdominal exploration, partial division was detected on anastomosis which was on duodenojejunal junction at Ligament of Treitz level. Congestion of first 10 cm of jejunum which is presented at distal of anastomosis was degenerated. We seperated the anastomosis completely. Nearly 3 cm from 4th part of duodenum was seperated by dissection of Ligament of Treitz. 31 mm circular stapler anvil was fixed to duodenal end with purse string suture. Congestion of 10 cm of jejunal end was degenerated and this part resected than circular stapler was entered from jejunal end, and nearly 5 cm forward duodenojejunal end/side anastomosis was made up. It was seen that tissues wich left inside of stapler were full thickness and circular. Than jejunal end was closed by using linear stapler. To prevent the anastomosis, from lateral side of second part of duodenum, Witzel style tube duodenostomy was put (Fig. 1a, b, c). Abdomen was closed after drains left to intraabdominal cavity. At 6th day patient had no problem and on this day it was seen that there was no leakage, by imaging passage graphy via duodenostomy (Fig. 2). Patient was allowed to have oral nutrients. 15th day tube duodenostomy was ejected and the patient was discharged with full recovery.

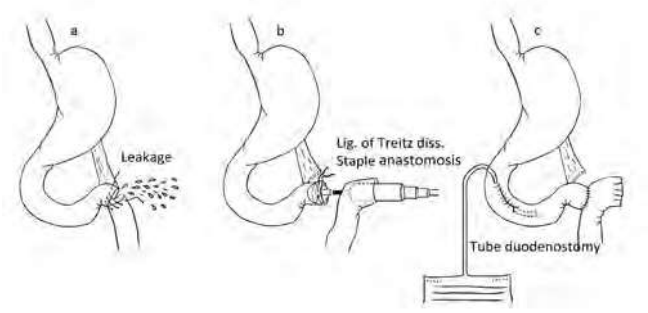


Figure 1. Anastomosis leakage (A), Seperation of ligament of treitz and preperation for stapler anastomosis(B), Anastomosis and tube duodenostomy (C).

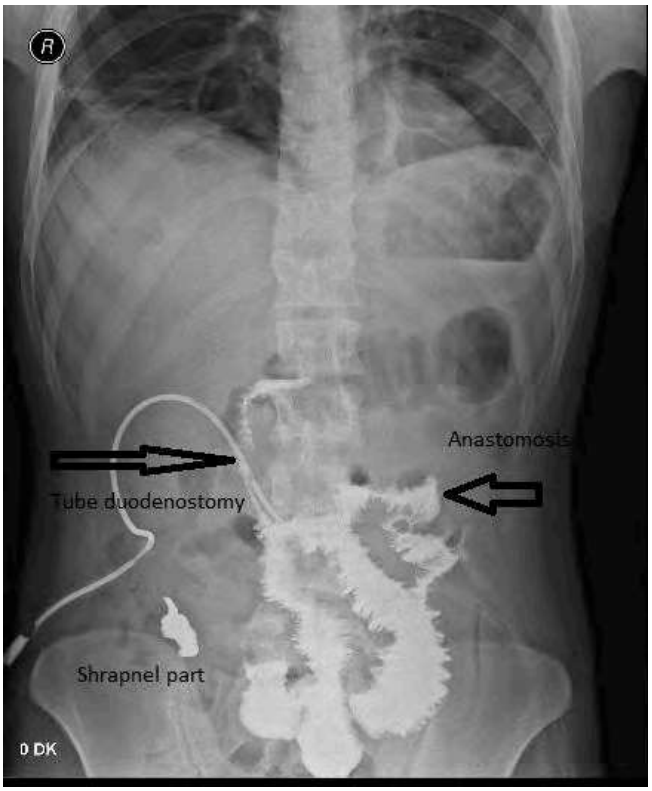


Figure 2. Imaging of anastomosis passage by giving opaque material via tube duodenostomy

Discussion

Anastomosis leakage is one of most severe surgical complications [7]. Incidence of this complication differs in various studies nonetheless Haga et al. reported between 1,3% and 19,6% with 4,1% average [7]. Mortality rates varies between 0-18,4% [7]. Mortality of duodenal injuries are nearly 17% [8]. After anastomosis leakage treatment of patient gets more difficult and mortality rates increases. At lower level gastrointestinal anastomosis leakages, because of a lays there is an ostomy alternative mortality risk is in proportion to low, nonetheless at upper level gastrointestinal anastomosis leakages, when it is taken account of nutrient condition of patient it is possible to say that desire of making anastomosis a bit more increases and so this situation increases the mortality rate.

Our patient was operated two times by reason of duodenojejunal injury and anastomosis leakage occurred after both operations. We operated patient and because of anastomosis leakage at Ligament of Treitz level, taking into account that it was difficult to make the anastomosis manually, according as esophagojejunal anastomosis which made after total gastrectomy, we made end/side anastomosis by using circular stapler. To prevent the passage that we made anastomosis, tube duodenostomy was performed with Witzel Technique. When we ascertained literature, on an anastomosis leakage made for a like this injury, we didn't come upon a procedure that is similar to ours. Therefore we wanted to present the new surgical technique that we made.

Conclusion

As a result we saw that, when it is considered that it is necessary to try anastomosis alternative firstly, at injuries which it is difficult to make anastomosis manually,to maket he anas-

tomosis with stapler will be more suitable. Also, we witnessed benefits of tube duodenostomy to prevent the anastomosis.

Competing interests

The authors declare that they have no competing interests.

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