Chapter 2

PLACE OF BURSECTOMY IN GASTRIC CANCER SURGERY

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INTRODUCTION

Gastric cancer is the 5th most prevalent cancer type worldwide and it has the 3rd rank in mortality rates.(Ferlay & et al,2015) Lymph node metastasis is considered to be one of the most significant prognostic factors in gastric cancer. D2 lymph node dissection is implemented as standard surgical treatment in the east Asia and in the West.(Wang &et al,2016) Bursa omentalis is defined as "Lesser peritoneal sac" in the Dictionary of Medical Terms .(Kocatürk,2005) It means "a smaller cavity/pouch of peritoneal cavity" in Turkish. In fact, even this definition itself forms the basis of various topics of discussion, that will be mentioned later on. The basis of this discussion is the reality that, no matter what you call it, bursa omentalis is a part of the peritoneum. Anatomically, liver, stomach and omentum lie in front of the omental bursa, and pancreas, left surrenal gland and kidney at the back. And it is connected to anterior peritoneal cavity by the foramen of Winslow.(Kayaalp,2015)

DEFINITION

Bursectomy is a procedure involving the resection of the anterior pancreatic capsule and anterior membrane of the transverse mesocolon along with omentectomy.

The objective is the en-bloc resection of post gastric cavity, eliminating free cancer cells and micrometastases, hence reducing recurrence rates. Yet another benefit is the removal of the lymph nodes located along the greater curvature of the stomach, enabling total excision of gastrocolic ligament forming the anterior-inferior of bursa.(Blouhos,Boulas & Hatzigeorgiadis,2013, Hundahl 2012) Bursectomy, defined as the removal of bursa omentalis, is a part of D2 dissection, and it requires experience to implement properly. However, oncologic benefits of bursectomy have become controversial in recent years, with the development of laparoscopic and robotic surgery.

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for Gastric Cancer", it was stated that D2 lymph node dissection was the gold standard in stomach cancer, while withdrawal from bursectomy was observed worldwide. (Byrne & et al , 2018)

What was mentioned at the conclusion section of every article, namely prospective randomized controlled trial was finally revealed in 2018. In the study conducted in Japan by the participation of 57 hospitals, 1503 patients operated between 2010-2015 were included. The patients between 20-80 years of age, with BMI<30, T3,T4 adenocarcinoma pathology but no distal metastasis, who had distal or total gastrectomy (D2) but no chemoradiotherapy before were included. Along with exclusion criteria, 602+602, totally 1204 patients were enrolled. The term of experienced surgeon, which was stressed in every article, was defined; such that the surgeons who conducted more than 100 gastrectomy and more than 20 bursectomy were regarded as experienced surgeons to work with. An the end of the study it was concluded that bursectomy would not be considered as the standard treatment method for resectable cT3 or cT4 gastric cancer cases, because it could not prove any better survival rates than the alternatives. (Kurokawa & et al , 2018)

In conclusion, bursectomy requires operative experience like D2 lymph dissection (more than 100 gastrectomy and more than 20 bursectomy), with a rough and uneven learning curve. According to the results of the previous studies, the method was indicated to be useful only in T3-4 tumors with serosal invasion on the posterior wall (1965-2018:53). However, it was not recommended even in T3-T4 tumors since any oncologic benefit of bursectomy was not observed in the randomized controlled phase 3 trial reported in 2018. As a result, bursectomy is being abandoned in the world as well as in our country.

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