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Mide Kanserli Hastalarda Atan Kalpte Koroner Bypass: Olgu Sunumu

BEATING HEART CORONARY BYPASS PROCEDURES IN PATIENTS WITH STOMACH CANCER: CASE REPORT

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Özet

Çeþitli sistemlerinde kanser tanýlanmýþ hastalarda ekstrakorporeal dolaþýmla yapýlan normal konvansiyonel koroner bypass iþlemi sýrasýnda multipl metastatik yayýlým yan etkisi olabileceði ve bu nedenle çalýþan kalpte koroner bypass uygulamasýnýn daha etkin olduðu vurgulanmaktadýr. Biz de iki erken dönem mide kanserli olguda baþarýyla gerçekleþtirdiðimiz atan kalpte koroner bypass operasyonunun olumlu yönlerini literatür bilgisi ýþýðýnda aktarmayý amaçladýk.

Anahtar kelimeler: Atan kalpte koroner bypass, mide kanseri

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Summary

Normal conventional coronary bypass procedure with extracorporeal circulation can cause multiple metastatic spread in patients with various systemic cancers and performing coronary bypass in beating heart is more effective. We aimed to present the positive sides of our beating heart coronary bypass operations in two patients with early stage stomach cancer, with the literature information.

Keywords: Beating heart coronary revascularization, stomach tumour

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Introduction

Widespread and successful performance in cardiac operations lead these operations in the patients with high risk due to other systemic pathologies. Early stage stomach cancer is defined as lesion limited to mucosa and submucosa of the stomach. It is thought that it can be treated with high success rate after adequate resection. Cure rates are over 90% for 5 years and over 80% for 10 years [1]. In the patients both with malignant neoplasia and serious coronary artery disease, it is recommended to perform coronary artery revascularization before the therapy of neoplasia and that coronary bypass with beating heart is a reliable and effective method [2]. In this study we aimed to present our therapy strategy in two cases with early stage stomach carcinom, who underwent off-pump coronary bypass surgery (CABG) before cancer operation.

Case

The first patient was a 63 years old man and admitted to our hospital with abdominal and thoracal pain began 3 months earlier. Eosophagogastroduodenoscophy was performed in our General Surgery clinic and radial alignment was found at corpus and antrum joint directed to posterior wall. Histopathological diagnosis was ring form cell adenocarcinom and qualified as early stage stomach Ca due to minimal level of tumoral cells and patternal features, and gastrectomy was planned. Before gastrectomy operation metastatic investigations were held with brain computerized tomograpmy (CT), whole abdominal stress electrocardiography (sECG), whole body bone scintigraphy and thoracal CT and no metastatic focus finding was determined. All preoperative biochemical parameters were normal. Preoperative stress electrocardiography (sECG) was resulted positive and in subsequent coronary angiography severe stenotic lesion was determined with 60% rate before first diagonal branch and 99% after it on the left anterior descending artery (LAD). All segment were hypokinetic in ventriculography and left ventricle ejection fraction was 35%. He underwent coronary revascularization with these findings. We performed aorta to LAD bypass on off-pump with a saphenous vein graft. He tranferred to service from intensive care unit at first postoperative day and didn't have additional problem and discharged with surgical cure at 6th day. He was recommended to admit our outpatient clinic for follow-up and to General Surgery Clinic for gastrectomy after the 4th week of operation.
The second patient was 74 years old and had abdominal and chest pain in last 6 months. At our General Surgery clinic, a mass was determined at the small curvature of the stomach with whole abdominal CT. Subsequently eosophagogastroduodenoscopy was performed and stomach

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cardia cancer extending to surrounding 4 cm area at cardia and beginning from cardioeosofageal sphinctery level at eosophagus lower end and an antral mucosal gastritis were diagnosed. Early stage, poor differentiated adenocancer was determined at stomach cardia with biopsy samples, taken during endoscopy. General Surgery Clinic planned a subtotal gastrectomy and metastatic investigations didn't show any specialty. Preoperative biochemical parameters were all normal. A coronary angiography was performed because his ECG was positive and we found multiple severe stenotic coronary artery lesions 99% before diagonal branch on the LAD, 95% at the beginning of first obtuse branch of circumflex artery (Cx) and 100% at the proximal part of the right coronary artery (RCA). Ejection fraction was 50% in ventriculography. He was operated with these findings and underwent coronary revascularization on the beating heart. We performed quadruplet off-pump CABG in the patient (LIMA-LAD, A-D_1, A-$C_x om_1$, A-RCA). This case was taken to service from intensive care unit at postop first day and discharged with cure at 6th day. It was planned to perform gastrectomy at 6^{th} postop week, General Surgery and our outpatient clinic controls were recommended.

Discussion

Coronary bypass operations can be performed with acceptable risks in the patients with different system cancers. It was emphasized that normal conventional CABG procedure with cardiopulmonary bypass could cause multipl metastasis, so off-pump CABG procedure is more effective [3].

In Western countries stomach cancer mortality is decreased dramatically during the last 60 years but it is still the major death cause due to malign diseases except skin cancer. Most effective therapy modality is surgery. Stomach cancer is a major health problem and a trouble for surgery. Over 95% of gastric malign neoplasias are adenocarcinomas [1]. Our cases were also in adenocancer group. Our cases were in T_1 class and their histopathologic investigations showed ring-form tumoral cells in some areas of deep lamina propria (3 to 8 cells) and regenerative changes of mucosal glands in other areas and mononuclear cells infiltration in lamina propria. Early stomach cancers are restricted in mucosa and submucosa of the stomach and cure rate is over 80% after adequate resection [1].

Method of choice in patients with various system cancers for coronary revascularization must be coronary bypass on the beating heart and must be performed before of synchronically with essential cancer operations and if patients are not convenient for this procedure operation must be performed with CPB [2,4-6].

Davydov et all studied with 27 patients having cancer to evaluate the radical surgical therapy for additional severe coronary artery disease and operated these two pathologies synchronically to determine its convenience for clinical pratics [7]. Six of the cases had gastric adenocancer diagnosis. Mean survey was 26 months after synchronical operation. They reported that synchronical operations increased resectability,radical therapy potential, functional resulting of operation and extension of operability limits.

To avoid from complications in patients with stomach cancers, if possible coronary revascularization, either synchronized or subsequent, must be performed electively in beating heart [4].

Hirose and associate [2] reported that CABG before the extracardiac major operation decreases short and long-term mortality due to coronary ischemia effectively in their study with 19 patients. They performed coronary revascularization in beating heart or with cardiopulmonary bypass during 6 years period beginning at 1992. Also they proved that healing period was shorter and hospital stay and cost decreased significantly when compared with conventional CABG in the patients with beating heart CABG procedure if the risks of cardiopulmonary bypass procedure were relieved.

As a result, if patients with cancer have coronary artery disease and are going under surgical revascularization, off-pump CABG relieves cardiac problem synchronically or subsequently and enhances the solution of potential problems during and after the major resection surgery. In patients with early stage cancer pathology and having a life-threading cardiac pathology, cardiac surgical therapy must be performed immediately. In these conditions open cardiac operations, with acceptable morbidity and mortality rates, can be performed safely and they improve cardiac symptoms, quality of life and major pathology can be resected radically with very low risk rate so survey can be lengthen significantly.

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