

## Case Report

# Combined Operation of CABG, and Rt. Ex. Ileo femoral, Lt. Femoropopliteal Bypass: a case report

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### Abstract

*It is very much problematic to plan the overall therapeutic strategy in patients with coronary artery diseases (CAD) and peripheral arterial diseases (PAD) affecting several arterial segment at the same time. The great saphenous vein (GSV) is usually used as a gold standard conduit. The symptom of the CAD and PAD vary with the site of involvement. Some sorts of the symptom of CAD may be obscured in patient with both CAD and PAD due to lack of ambulation for lower limb claudication, rest pain, ulceration and gangrene. To give maximum benefit to this patient, both the CAD and PAD should be dealt simultaneously or in the same settings. In our perspective if possible and adequate facilities is available the both operations better to be done on the same table. Because it has a better compliance to the patient both for financial savings and avoidance of harassment of 2nd. operation. Our present patient who was followed for 2 months has an excellent postoperative results with disappearance of rest pain and claudication.*

**Key words:** Ileo femoral bypass, femoropopliteal bypass, PAD, CAD

### Introduction

Both CAD and PAD is highly prevalent in population although there is a decline in mortality from Cardiovascular diseases (CVD)<sup>1</sup>. The risk factors responsible for are atherosclerosis, population ageing, smoking, diabetes, unhealthy lifestyles, and obesity<sup>2</sup>. So the management of CAD and PAD in the same table is a common challenge and arises many controversial issues in regard to optimal therapeutic strategy<sup>3</sup>. Usually the patients with symptom of PAD (claudication pain, rest pain, ulceration and gangrene) in peripheral angiogram (PAG) shows peripheral arterial occlusion<sup>4</sup>. As this is generalized disease the he/she needs CAG (coronary angiogram) which may reveal CAD. Here due to lack of movement symptom of CAD is obscured. In our perspective for this usually vascular surgeon does not like to handle this patient due to presence of CAD. So

he advises to do coronary revascularization first then peripheral revascularization. So the patient faces a financial and operational great problem.

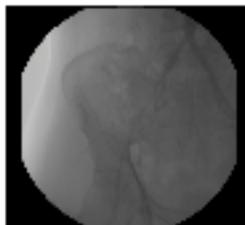
### Case report

Mr. Rezaul Karim, 52 years old male from Ullapara, Sirajgonj, got admitted in Khwaja Yunus Ali Medical College Hospital at Sirajgonj in Cardiovascular Surgery on 17th. March 2012 (R-011203034411) with the history of claudication pain and rest pain more on the Rt. for 6 month with occasional chest pain, palpitation and shortness of breathing. He was hypertensive, Smoker but non diabetic. He had no significant past history of illness. On physical examination his pulse was 84 beats/minutes (regular), BP was 110/75 mmHg, both lung bases were clear, Hair loss and wasting of

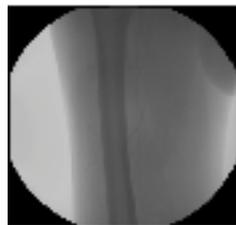
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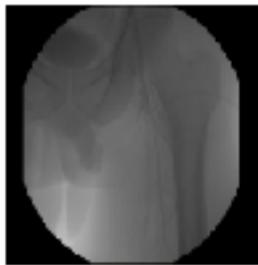
both lower limb muscle was present. There was pre-gangrene on rt. great toe and no pulses were present in both lower limb. There was no hepato-splenomegaly, Other organs were normal. CxR PA view showed a slight cardiomegaly, ECG showed anterior ischaemia, Echocardiogram showed LVIDd- 50 mm, LVIDs- 35 mm. LVEF- 57%, trivial MR, Blood group "A" + ve, His other investigation was within normal limit. He underwent both CAG and PAG in the same settings and the CAG showed 95% occlusion of Lt. anterior descending coronary artery, 80% occlusion of diagonall artery. His PAG showed complete occlusion of rt. external iliac artery (EIA) after internal iliac artery (IIA) and complete occlusion of rt. SFA (proximal 2/3) while the popliteal artery (PA) was patent and tibial artery was ill defined, complete occlusion of Lt. superficial femoral (SFA) artery (proximal 2/3) after deep femoral artery (DFA) with good distal run-off. Considering the patients' overall condition we decided to do the operation in the same settings. Plan was OPCAB for coronary occlusion. Graft will be Lt. internal mammary artery (LIMA) to Lt. anterior descending artery (LAD) and reverse saphenous vein graft (RSVG) to D1, long RSVG from Rt. EIA to rt. PA and also long RSVG from Lt. common femoral artery(CFA) to Lt. PA.



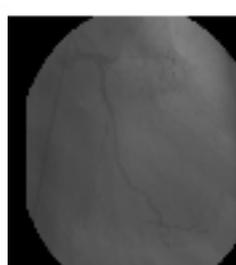
Complete occlusion of Rt. EIA



Complete occlusion Rt. SFA



Complete occlusion Lt. SFA



coronary occlusion

## Operative Procedures

We started operation in the morning (9.00 am.). After G/A positioning of the patient done both for the operation of CAD and PAD. Median sternotomy was done and LIMA was harvested. At the same time GSV from Lt. lower limb and GSV from rt. thigh was

harvested in the usual open procedure. Skeletonization of CFA, SFA and DFA on both sides were done. Popliteal artery on both sides just above knee was skeletonized. There was good lumen in CFA on Lt. But no graftable lumen on CFA on the rt. side. So giving loin incision rt. EIA was skeletonized.

After completing the coronary graft according to the above plan the peripheral arterial graft was done accordingly. After completion of peripheral arterial grafts the posterior tibial arterial (PTA) pulses in both lower limb and anterior tibial arterial pulses in Lt. lower limb were palpable on table. Due to occlusion of ATA on rt. it was not palpable. We completed the operation within 3 pm. Patient was shifted to ICU at 4 pm. with minimum inotropic support good haemodynamic status.

## Course in the ICU and Postoperative status

Mechanical ventilatory support was given to the patient up to 10 pm. Then patient was extubated when all the criteria for extubation fulfilled. Patient was in ICU for 3 days. Then he was shifted to cabin on 3rd. postoperative day. On the 9th. postoperative day patient was discharged with advice. After 15 days patient attended in the out patient department with routine investigation report.

## Discussion

Patient with combined CAD and PAD have increased morbidity and mortality. So they should be treated aggressively according to national guidelines. Main important is to lifestyle modification and as a priority, complete cessation of smoking, avoidance of exposure of passive smoke, 30 minutes of exercise daily, weight loss to a BMI of <25kg/m<sup>2</sup>. Blood pressure should be <140/90 mmHg. Antiplatelet therapy should be started in all patients with CAD and PAD, Aspirin 75-300 mg. daily is first-line therapy. Patient with PAD are less intensively treated than patient with other cardiovascular diseases. Similarly patient with lower extremity PAD suffering from an acute coronary event are often less aggressively treated (both medical therapy and revascularization). Reason for this is unknown. And may be due to insufficient knowledge and lack of awareness among doctors and patients of associated atherosclerotic risk with the presence of PAD.

## Conclusion

Management of patients with combined CAD and PAD

is not so an easy job. Early diagnosis of PAD is essential to start risk reduction therapy for to reduce cardiovascular mortality and morbidity. Perioperative evaluation of severity of the disease in peripheral circulation (lower extremity, aorta or carotid artery) plus a clear identification of associated co-morbidities( such as diabetes, renal artery stenosis etc.) is essential to manage patient optimally medically. Close collaboration between intervensiionists, cardiologists, vascular surgeons and anesthetists is necessary to successful management of such patients.

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