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# Diffuse coronary artery disease: Role of reconstruction/remodelling in coronary bypass surgery

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**Objective:** To study the outcomes in patients with diffusely diseased coronary arteries, who underwent long segment, bypass surgery.

**Materials & Methods:** From February 2015 to October 2015, 46 patients with diffusely diseased coronaries underwent coronary artery bypass graft surgery (CABG) with these techniques at our centre. We have classified the anastomosis based on the length into two types, i.e. remodelling group (length of anastomosis ranges from 2-4 centimeters) and reconstruction group (length of anastomosis >4 centimeters). 28 patients underwent left anterior descending artery (LAD) remodelling with a mean length of anastomosis being 2.86±0.49 cm, whereas 18 patients underwent LAD reconstruction with a mean length of anastomosis of 4.91±0.63 cm. The average size of LAD lumen measured on table was 1.08±0.22 mm. The preoperative mean ejection fraction was 50.15±8.29%. 23 patients were operated off pump and the rest on pump.

**Results:** The ICU recovery of all the patients was uneventful. Mean duration of ventilation was 8.6 hours. None of the patients had postoperative electrocardiographic (ECG) changes, arrhythmias, renal impairment or re-explorations. One death was recorded; cause was cerebrovascular accident (CVA) on the 7th postoperative day. All patients are on follow-up. None had any new ECG changes nor cardiac symptoms at the end of 12-24 month follow-up. 2D echocardiograph was done in all postoperative patients at 3, 6, 12 and 24 months.

**Conclusion:** All diffuse disease coronary diseases, who are usually deferred surgery and those who are advised for medical management, can be submitted for CABG with long segment arteriotomy and anastomosis which can be either coronary remodelling or reconstruction. The two year outcome of these patients is reasonably good, but the long term outcomes need to be studies further.