The effects of left ventricular function and dimension on the success of OPCAB

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**Aim:** Off-pump coronary artery bypass (OPCAB) has been a reasonable alternative to conventional CABG. Nevertheless, it carries significant risk factors related to conversion from off-pump to on-pump surgery. Therefore, this study evaluated the effects of left ventricular (LV) function and dimension on the success rates of OPCAB.

**Methods:** From 2008 to 2012, 100 OPCAB were performed. Of these, 84 (84%) patients underwent OPCBA without events (OPCAB group) and 16 (16%) cases were converted to C-CABG (conversion group). The causes of conversion were hemodynamic instability in 12, difficulty of anastomosis in three and ventricular arrhythmia in one patient. The present study evaluated risk factors such as LV ejection fraction, wall thickness, dimension and mitral insufficiency for conversion to on-pump surgery between two groups.

**Results:** The preoperative demographics and operative characteristics were not statistically different between two groups. There were no independent risk factors for conversion to on-pump CABG related with LV function and dimension (p=.154 for LV ejection fraction, p=.287 for LV diastolic dimension and =.739 for LV wall thickness). The mitral regurgitation did not raise the conversion rate (p=1.0).

**Conclusions:** The deteriorated LV function, increased LV dimension and wall thickness including valvular insufficiency has been regarded as increasing the rate of conversion during OPCAB. The present study demonstrated that LV parameters including LV wall thickness, dimension, function and valvar insufficiency did not increase the conversion rate of OPCAB.

**Biography**
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