Left ventricular remodeling may occur as an early or late complication following myocardial infarction. Typical appearances are either those of a true LV aneurysm, “Ischemic Cardiomyopathy” appearance following early reperfusion, and false or pseudoaneurysm formation True and false aneurysms demonstrate specific criteria and may be easily differentiated on TOE examination.

The aims of surgery are to relieve ischemia, reduce ventricular volume using an intraventricular balloon, and where appropriate to repair mitral regurgitation. Of the surgical options, the most useful is the endoventricular patch plasty or Dor operation.

The nature of the operation is such that it may be classified as a higher risk procedure, and TOE has an important role to play in the following areas:

- Management of hemodynamics intraoperatively including the need for inotropic treatment
- Assessment of appropriate ventricular filling status
- Assessment of LV volume reduction
- Assessment of mitral repair
- Assessment of regional wall motion following revascularisation

Surgical remodelling can be successfully undertaken in patients with very poor LV function and a profoundly low ejection fraction. Reduction in LV volume results in a more energy efficient LV as determined by Laplace’s Law and revascularisation further helps to promote function. However, the early postoperative course may be complex and prolonged, although longer term results are encouraging.