OPERATIVE PROCEDURE:,1. Redo coronary bypass grafting x3, right and left internal mammary, left anterior descending, reverse autogenous saphenous vein graft to the obtuse marginal and posterior descending branch of the right coronary artery. Total cardiopulmonary bypass, cold-blood potassium cardioplegia, antegrade for myocardial protection.,2. Placement of a right femoral intraaortic balloon pump.,DESCRIPTION: , The patient was brought to the operating room and placed in the supine position. After adequate endotracheal anesthesia was induced, appropriate monitoring lines were placed. Chest, abdomen an legs were prepped and draped in sterile fashion. The femoral artery on the right was punctured and a guidewire was placed. The track was dilated and intraaortic balloon pump was placed in the appropriate position, sewn in place and ballooning started.,The left greater saphenous vein was harvested from the groin to the knee and prepared by ligating all branches with 4-0 silk and flushed with vein solution. The leg was closed with running 3-0 Dexon subcu and running 4-0 Dexon on the skin.,The old mediastinal incision was opened. The wires were cut and removed. The sternum was divided in the midline. Retrosternal attachments were taken down. The left internal mammary was dissected free from its takeoff at the left subclavian bifurcation at the diaphragm and surrounded with papaverine-soaked gauze. The heart was dissected free of its adhesions. The patient was fully heparinized and cannulated with a single aorta and single venous cannula. Retrograde cardioplegia cannula was attempted to be placed,

but could not be fitted into the coronary sinus safely, therefore, it was banded and oversewn with 5-0 Prolene. An antegrade cardioplegia needle sump was placed and secured to the ascending aorta. Cardiopulmonary bypass ensued. The ascending aorta was cross clamped. Cold-blood potassium cardioplegia was given antegrade, a total of 10 cc/kg. It was followed by sumping the ascending aorta. The obtuse marginal was identified and opened and an end-to-side anastomosis was performed with a running 7-0 Prolene suture. The vein was cut to length. Antegrade cardioplegia was given, a total of 200 cc. The posterior descending branch of the right coronary artery was identified, opened and end-to-side anastomosis then performed with a running 7-0 Prolene suture. The vein was cut to length. Antegrade cardioplegia was given. The mammary was clipped distally, divided and spatulated for anastomosis. The anterior descending was identified, opened and end-to-side anastomosis then performed with running 8-0 Prolene suture and warm blood potassium cardioplegia was given. The cross clamp was removed. A partial-occlusion clamp was placed. Aortotomies were made. The vein was cut to fit these and sutured in place with running 5-0 Prolene suture. The partial-occlusion clamp was removed. All anastomoses were inspected and noted to be patent and dry. Atrial and ventricular pacing wires were placed. The patient was fully warmed and ventilation was commenced. The patient was weaned from cardiopulmonary bypass, ventricular balloon pumping and inotropic support and weaned from

cardiopulmonary bypass. The patient was decannulated in routine fashion. Protamine was given. Good hemostasis was noted. A single mediastinal chest tube and bilateral pleural Blake drains were placed. The sternum was closed with figure-of-eight stainless steel wire. The linea alba was closed with figure-of-eight of #1 Vicryl, the sternal fascia closed with running #1 Vicryl, the subcu closed with running 2-0 Dexon, skin with running 4-0 Dexon subcuticular stitch. The patient tolerated the procedure well.