

PREOPERATIVE DIAGNOSIS: , Coronary artery disease.,POSTOPERATIVE DIAGNOSIS: , Coronary artery disease plus intimal calcification in the mid abdominal aorta without significant stenosis.,DESCRIPTION OF PROCEDURE:,LEFT HEART CATHETERIZATION WITH ANGIOGRAPHY AND MID ABDOMINAL AORTOGRAPHY:,Under local anesthesia with 2% lidocaine with premedication, a right groin preparation was done. Using the percutaneous Seldinger technique via the right femoral artery, a left heart catheterization was performed. Coronary arteriography was performed with 6-French performed coronary catheters. We used a 6-French JR4 and JL4 catheters to take multiple cineangiograms of the right and left coronary arteries. After using the JR4 6-French catheter, nitroglycerin was administered because of the possibility of ostial spasm, and following that, we used a 5-French JR4 catheter for additional cineangiograms of the right coronary artery. A pigtail catheter was placed in the mid abdominal aorta and abdominal aortic injection was performed to rule out abdominal aortic aneurysm, as there was dense calcification in the mid abdominal aorta.,ANALYSIS OF PRESSURE DATA: , Left ventricular end-diastolic pressure was 5 mmHg. On continuous tracing from the left ventricle to the ascending aorta, there is no gradient across the aortic valve. The aortic pressures were normal. Contours of intracardiac pressure were normal.,ANALYSIS OF ANGIOGRAMS:, Selective cineangiograms were obtained with injection of contrast to the left ventricle, coronary arteries, and mid abdominal aorta. A

pigtail catheter was introduced into the left ventricle and ventriculogram performed in right anterior oblique position. The mitral valve is competent and demonstrates normal mobility. The left ventricular cavity is normal in size with excellent contractility. Aneurysmal dilatation and/or dyskinesia absent. The aortic valve is tricuspid and normal mobility. The ascending aorta appeared normal.,Pigtail catheter was introduced in the mid abdominal aorta and placed just above the renal arteries. An abdominal aortic injection was performed. Under fluoroscopy, we see heavy dense calcification of the mid abdominal aorta between the renal artery and the bifurcation. There was some difficulty initially with maneuvering the wire pass that area and it was felt that might be a tight stenosis. The abdominal aortogram reveals wide patency of that area with mild intimal irregularity. There is a normal left renal artery, normal right renal artery. The celiac seems to be normal, but what I believe is the splenic artery seen initially at its origin is normal. The common left iliac and common right iliac arteries are essentially normal in this area.,CORONARY ANATOMY:, One notes ostial coronary calcification of the right coronary artery. Cineangiogram obtained with 6-French JR4 and 5-French JR4 catheters. Prior to the introduction of the 5-French JR4 nitroglycerin was administered sublingually. The 6-French JR4 catheters appeared to show an ostial lesion of over 50%. There was backwash of dye into the aorta, although there is a fine funneling of the ostium towards the proximal right coronary artery. In the proximal portion of the right

coronary artery just into the Shepherd turn, there is a 50% smooth tapering of the right coronary artery in the proximal third. Then the artery seems to have a little bit more normal size and it divides into a large posterior descending artery posterolateral branch vessel. The distal portion of the vessel is free of disease. The conus branch is seen arising right at the beginning part of the right coronary artery. We then removed the 6-French catheter and following nitroglycerin and sublingually we placed a 5-French catheter and again finding a stenosis, may be less than 50%. At the ostium of the right coronary artery, calcification again is identified. Backwash of dye noted at the proximal lesion, looked about the same 50% along the proximal turn of the Shepherd turn area.,The left coronary artery is normal, although there is a rim of ostial calcification, but there is no tapering or stenosis. It forms the left anterior descending artery, the ramus branch, and the circumflex artery.,The left anterior descending artery is a very large vessel, very tortuous in its proximal segment, very tortuous in its mid and distal segment. There appears to be some mild stenosis of 10% in the proximal segment. It gives off a large diagonal branch in the proximal portion of the left anterior descending artery and it is free of disease. The remaining portion of the left anterior descending artery is free of disease. Upon injection of the left coronary artery, we see what I believe is the dye enters probably directly into the left ventricle, but via fistula excluding the coronary sinus, and we get a ventriculogram performed. I could not identify an isolated area, but it seems to be from the interventricular

septal collaterals that this is taking place.,The ramus branch is normal and free of disease.,The left circumflex artery is a tortuous vessel over the lateral wall and terminating in the inferoposterior wall that is free of disease.,The patient has a predominantly right coronary system. There is no \_\_\_\_\_ circulation connecting the right and left coronary systems.,The patient tolerated the procedure well. The catheter was removed. Hemostasis was achieved. The patient was transferred to the recovery room in a stable condition.,IMPRESSION:,1. Excellent left ventricular contractility with normal left ventricular cavity size.,2. Calcification of the mid abdominal aorta with wide patency of all vessels. The left and right renal arteries are normal. The external iliac arteries are normal.,3. Essentially normal left coronary artery with some type of interventricular septal to left ventricular fistula.,4. Ostial stenosis of the right coronary artery that appears to be about 50% or greater. The proximal right coronary artery has 50% stenosis as well.,5. Coronary calcification is seen under fluoroscopy at the ostia of the left and right coronary arteries.,RECOMMENDATIONS: ,The patient has heavy calcification of the coronary arteries and continued risk factor management is needed. The ostial lesion of the right coronary artery may be severe. It is at least 50%, but it could be worse. Therefore, she will be evaluated for the possibility of an IVUS and/or \_\_\_\_\_ analysis of the proximal right coronary artery. We will reevaluate her stress nuclear study as well. Continue aggressive medical therapy.