

[REDACTED]

CARDIAC CATHETERIZATION REPORT

PATIENT: MAHER, JOHN

[REDACTED]

PREOPERATIVE DIAGNOSIS:

1. Cardiac arrest at home status post paramedics cardiopulmonary resuscitation with defibrillation to atrial fibrillation with inferior posterior infarct.
2. Family history of early aggressive premature coronary artery disease.
3. History of hyperlipidemia.
4. History of smoking.

POSTOPERATIVE DIAGNOSIS:

1. Multivessel coronary artery disease with a subtotal right coronary artery with slow flow is the culprit.
2. Unclear neurologic status.
3. Successful angioplasty of the distal right coronary artery. No stent placed (see below).

PROCEDURE PERFORMED:

1. Left heart catheterization.
2. Coronary angiography.
3. Intraaortic balloon pump placement.
4. Angioplasty of the right coronary crux.
5. Right heart catheterization.

INDICATION:

Mr. Maher is a 41-year-old gentleman without prior known history of coronary artery disease. He may have had several recent days of symptoms possibly representing angina, although this is not clear at this time. He arrested, however, at home tonight. His wife promptly called paramedics who instituted CPR on arrival. He was defibrillated to atrial fibrillation with EKG evidence of relatively acute inferior posterior infarct with inferior ST elevation and anterior ST depressions. He has small Q waves and when labs are available, actually already has significantly elevated cardiac enzymes with CK 515, troponin 4.63. He has been unresponsive since ER arrival and is now intubated. He has been hypotensive requiring dopamine. He is tachycardic and gagging and coughing on the ventilator. He is being taken directly to the cath lab with hopes that we can stabilize him with primary percutaneous intervention. I have arranged for anesthesia to meet us in the cath lab for sedation.

MEDICATIONS:

DESCRIPTION OF PROCEDURE:

Anesthesia has assisted with the sedation. He is now comfortable on the ventilator saturating relatively well. He has a blood pressure in the 90s on 5 mcg of dopamine.

Arterial access was accomplished inserting a 6 French short Impra sheath in the right femoral artery using sterile Seldinger technique. Venous access was accomplished inserting a 5 French short Impra sheath in the right femoral vein as the peripheral IV was somewhat suspect, although working fine, and also there is the anticipation that we will need multiple drips. Cardiac

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catheterization was then performed using standard 6 French JL-4 and a 6 French JR-4 guide, each advanced and exchanged over the wire under direct fluoroscopic guidance and injecting small amounts of low osmolar nonionic contrast material in multiple axial and hemiaxial projections.

Coronary angiography demonstrates multivessel coronary artery disease in a right dominant anatomy as follows: The left main coronary artery is relatively undiseased. It bifurcates into an LAD and circumflex system. The circumflex gives off a first and second obtuse marginal and then continues to supply a relatively large left posterolateral or OM3. It has 50% disease in its proximal segment. There is a 90% stenosis involving the ostium of OM1. There is disease of 80% after this prior to an OM2. There is then disease of 80% prior to the OM3. The LAD is diffusely diseased 50 to 60% proximally, 80% mid and 70% distal. A first diagonal has approximately 80 to 90% disease. A second diagonal is relatively undiseased but is downstream from proximal disease. The right coronary artery engages relatively deeply and dumps on engagement. It has a 99% stenosis just at the crux. A moderate caliber right PDA and a fairly large right posterolateral are present downstream.

At this point, the patient's blood pressure is in the 80s. The dopamine is increased. A stat page to the surgeons is immediately answered. The case is reviewed. Based on the instability as well as the unclear neurologic status, both the surgeons and I agree with a plan of PTCA of the culprit vessel. This would be followed by hopefully stabilization and observation for recovery of neurologic function followed by bypass prior to discharge if he recovers neurologic function and remains stable.

The left groin was then accessed with a balloon sheath and a balloon pump (placed while calling the surgeons). This augments well at 1 to 3. The right coronary was reengaged with the 6 French guide and the distal stenosis easily crossed with a 0.014 BMW wire and dilated with two serial inflations of a 2.5 x 15 balloon. This resulted in normalization of antegrade flow down the right PDA from TIMI 2 to TIMI 3 with a residual 50% stenosis at the crux involving both the origin of the right PDA and the right posterolateral but with good flow into both. His STs improved and his blood pressure came up.

Everything was then withdrawn. A right heart balloon tip catheter was advanced to the PA position demonstrating relatively normal PA systolic and diastolic pressures (fluids increased). He continues to saturate at 100%. His balloon continues to augment well. He had some hypotension right after the balloon inflation treated with Neo-Synephrine but continues with a good blood pressure now approximately 30 minutes after case conclusion at 138/66 on this dopamine which is being weaned down presently at 5.

#### IMPRESSION:

1. Cardiac arrest at home. Cardiopulmonary resuscitation by paramedics on arrival followed by defibrillation in the field. Intubation on emergency room arrival. Atrial fibrillation which actually reverted to sinus rhythm in the lab.
2. Hypotension treated with dopamine and later with Neo-Synephrine in the lab after angioplasty, now improved.
3. Unknown ventricular function at this time.
4. Cardiac arrest consequence of an acute inferior posterior infarct. Initial enzymes already elevated.
5. Multivessel coronary disease with a subtotal right coronary crux stenosis as the culprit.
6. Successful angioplasty of the crux, surgery not pursued because of the patient's unstable nature as well as the unclear neurologic status at this time.

PLAN:

1. Continue aspirin, heparin and Integrilin for now as well as low dose dopamine as well as nitroglycerin at a low dose for vasodilation (coronary vasodilation).
2. Echocardiogram in the morning. Follow enzymes. Continue sedation and rest. Continue balloon pump at 1 to 3.
3. Hopefully tomorrow or the next day we can begin to assess for neurologic recovery.
4. If good neurologic recovery, anticipate multivessel bypass prior to discharge. Targets would include the LAD, as well as potentially the first and second diagonals, as well as the first, second and third obtuse marginals, as well as the right PDA and right posterolateral.
5. If he recovers neurologically and survives to surgical revascularization, will need aggressive risk factor reduction going forward to preserve any bypass grafts.

COMPLICATIONS:

HEMODYNAMICS:

SUMMARY OF FINDINGS:

RECOMMENDATIONS:

