

Case Presentation for Exercise Management of CAD Patient

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ABSTRACT

CASE HISTORY: A 70-year-old female was referred to our cardiopulmonary rehabilitation exercise program in November of 2016. She had previously attended the Laboratory for Wellness and Motor Behavior to help with her spinal stenosis. The client began her exercise program at the LWMB in November of 2015 and attended consistently until May of 2016. Her exercise prescription consisted of 4-5 exercises a day, including a combination of cardiovascular and resistance training. The client had noticed improvement in her strength and overall range of motion but eventually started to have symptoms of weakness throughout her body, at which point she went to see her cardiologist. She had to stop attending the program due heart blockage, where she needed two new stents placed in September of 2016, which led her to our program.

PHYSICAL EXAM: Medical history and initial baseline physical assessments were measured including resting 12-lead ECG, SaO₂- 95 %, HR- 80 bpm, BP- 134/58 mmHg, weight- 78.75 kg, and the Duke Activity Status Questionnaire. She was cleared for exercise and given a basic orientation to exercise equipment including Nu-Step®, SciFit Pro2 Total Body Bariatric, and seated exercises including range of motion and band resistance exercises prescribed at 2 sets of 12 (RPE rating = 13). An exercise prescription for attending the program three days per week was developed for approximately one hour at 2 to 3 METs with intermittent exercise on the Nu-Step® and Total Body Bariatric at a 5:1 ratio at 80% of estimated max METs to 20 percent of estimated max METs.

DIFFERENTIAL DIAGNOSES: 1. Hypertension, 2. Coronary Artery Disease (3 stents in '99 and 2 stents in '16), 3. Carpal tunnel, 4. Spinal stenosis.

TESTS & RESULTS: The clients cardiologist reports that she was having unstable angina. Heart cauterizations and angiograms were performed in order to find the extent of blockage. The cardiologist found 70-80% blockage in the right coronary artery and 90% blockage in the left circumflex. The client then had one stent placed in the RCA and one placed in the circumflex. Stenting was successful in both locations.

FINAL DIAGNOSIS: A 12-lead exercise test was performed after the client returned to activity, upon joining our program. There were no signs of ischemia seen throughout the exercise.

DISCUSSION: The client was cleared to perform activity while being supervised. Rhythm strips were monitored throughout cardiovascular exercise in follow-up of initial 12-lead. She has continued exercise consistently without any signs or symptoms of ischemia. There has been improvement in her resting vitals upon check-in from an average of 137/66 to 129/68. The client has also increased her cardiovascular exercise to 4 METs at a constant workload on both the Nustep and Total Body Bariatric. She continues to gain strength and has worked up to using dumbbells as well as higher resistance bands.

OUTCOME OF THE CASE: The client has adjusted well to her return to exercise and continues to show improvement in her exercise tolerance, workloads, and range of motion.

RETURN TO ACTIVITY AND FURTHER FOLLOW-UP: The client consistently attends the program and tolerates exercise well. Workloads increased to level 5 on the Nustep at 4 METs and level 5 on the Total Body Bariatric at 3.8 METs.