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## Severe left ventricular outflow tract obstruction in an infant of a diabetic mother

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Case study of 37 weeks gestational age male infant delivered by C-section to a 30 year old overweight mother with poorly controlled diabetes on insulin and metformin is presented. Prenatal ultrasound showing polyhydramnios, Apgar score were 1, 6, 6, 7 at 1, 5, 10, and 15 minutes, respectively, with the infant given PPV x 30 seconds and intubated by 3 minutes of life. Physical exam is significant for a grade 3/6 holosystolic murmur at left upper sternal border on auscultation. Initial management included D10W boluses x3 for persistent hypoglycemia, mechanical ventilation by SIMV. Chest X-ray revealed cardiomegaly. Echocardiography showed severe hypertrophied but intact interventricular septum; the left ventricle cavity size was severely diminished, free wall severely hypertrophied; severe left ventricle outflow tract obstruction, severe sub-aortic stenosis, and moderate mitral insufficiency. Baby was transferred to NYU for cardiac management, placed on ECMO for 4 days. Patient expired 24 hours after extracorporeal membrane oxygenation (ECMO) was weaned off. Infant of diabetic mothers with symptomatic hypertrophic cardiomyopathy in severe cases, left ventricular outflow tract obstruction occurs with apposition of the anterior leaflet of the mitral valve to the interventricular septum during systole. Cardiac output is significantly reduced and the infant becomes symptomatic with respiratory distress, tachycardia, ejection murmurs, and hepatomegaly among others. Medical management in symptomatic patients comprises beta blockers and ECMO support, although few data of its effectiveness has been found. ECMO allows for time to ameliorate the pulmonary hypertension and supports the patient during this critical period with subsequent improvement of the ventricular hypertrophy.

### Biography

Ana Maria Gonzalez Cadavid is a Medical Doctor graduated in Colombia. She has completed her Medical studies from the Universidad del Norte, Colombia. Currently, she is a first year Pediatric Resident at Woodhull Medical Center, NY, USA.

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