Hemoglobin Bart’s hydrops fetalis (homozygous α0-thalassemia) was previously considered a universally fatal condition; however, with recent advances in prenatal care and the availability of intrauterine blood transfusions, an increasing number of patients are now surviving into adulthood. In this presentation we will discuss the outcome of patients with hemoglobin Bart’s hydrops fetalis, review our novel understanding if its unique pathophysiology and entertain opportunities for future research.