# ABSTRACT

**Background** Anomalous left coronary artery from the pulmonary artery (ALCAPA) accounts for 0.25-0.5% of congenital cardiac disease. ALCAPA results in myocardial ischaemia and a dilated cardiomyopathy which can be reversed post-surgical correction. We describe the presenting clinical features, diagnostic findings and post-operative outcomes, including the improvement of the left ventricular function, in patients presenting to a Southern African tertiary care centre.

**Methods** A retrospective analysis of patients with ALCAPA over a 28-year period at the Chris Hani Baragwanath Academic Hospital (CHBAH).

**Results** A total of 38 patients (24 (63.2%) females; median age at diagnosis of 4.6 months (IQR: 3.2 to 9.1 months)) were included. The symptoms and clinical features on presentation were nonspecific. Cardiomegaly on chest X-ray (CXR) was present in 84.2% of patients. Deep Q waves in leads I and aVL was the most prevalent finding on electrocardiography. ST segment depression and T wave inversion occurred in the lateral and inferior diaphragmatic leads. LVEF significantly improved from (38.8±6.3)% to (57.5±9.1)% post-surgical correction (p-value=0.0004) by the first follow up (at a median of 1.3 months). The early mortality rate was 21.6%.

**Conclusion** The symptoms at presentation are nonspecific and predominantly respiratory. A high index of suspicion by clinicians with a focus on the common electrocardiographic features is crucial in the diagnosis of ALCAPA.