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## Clinical and developmental profile of ductal-dependent heart disease in a pediatric unit: Study of 21 cases

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**Introduction:** Congenital heart diseases are common in children. The ductal-dependent heart disease group includes defects with major right or left obstacles. Maintaining patency of the ductus arteriosus in this group is vital to ensure the systemic circulation. The purpose of our study was to clarify the clinical and developmental profile of these conditions.

**Material & Methods:** We conducted a retrospective study of cases of ductal-dependent heart diseases collected in the neonatal unit of the pediatric department of Mongi Slim Hospital La Marsa over a period of 4 years (January 2012-July 2016).

**Results:** We collected 21 cases of ductal-dependent heart disease during the study period. Average age at diagnosis was 2.1 days with extremes of first hour of live and eighteen days. Sex ratio (M/F) was 2. Inbreeding was present in 2 cases. Only one case had history of cardiac disease among siblings. The pregnancies were complicated by gestational diabetes in 4 cases. Antenatal ultrasound has not been performed in 5 newborns. Antenatal diagnosis of heart disease has been established in only 2 cases. The birth was vaginal in 12 cases. The Apgar at one minute and 5 minutes was respectively 7.4 and 9.1. Mean birth weight was 3070 grams. Neonatal resuscitation in the delivery room with use of mechanical ventilation was necessary in 2 cases. Ten (10) newborns were cyanotic at birth. The most common reason for admission was neonatal respiratory distress (12 cases). This respiratory distress was secondary in 8 newborns. A heart murmur was objectified in 10 cases. Two (2) newborns had developed heart failure. Femoral pulse were little or not perceived in 15 cases. Average saturation at ambient air was 78.4% and 89.7% within oxygen. Genetic studies have been performed in only 6 cases of which one (1) Di George syndrome, one (1) Cornelia Delange syndrome, two (2) Down syndrome and two with normal genetic profile. Eight (8) newborns received a first-line treatment based on prostaglandin. Seven (7) cases have urgently received an atrioseptotomy (Rashkind maneuver) and were operated abroad successfully. A fatal outcome was observed in 6 patients with heart disease in question as critical valvular abnormalities, single ventricle and atrioventricular discordance. Eight (8) infants were lost to view. Mean follow survivors were estimated at 20 months. Their evolution was marked by susceptibility to viral and bacterial infections without heart failure episodes.

**Conclusion:** Ductal-dependent heart diseases are potentially serious pathologies. Collaboration between gynecologists, pediatricians and pediatric cardiologists is essential to ensure optimal care.

### Biography

Barbaria W has completed her Medical studies from Mongi Slim Hospital-Tunisia. She chose Pediatrics as specialty. She accomplished training in different pediatric departments and neonatal centers. She participated in national and international conferences as speaker. She has published papers in reputed journals.

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