

**C94. The characteristics and outcome of pediatric patients with congenital heart disease (CHD) infected by coronavirus disease 2019 (COVID-19) between march 2020 to february 2021 at sanglah hospital: a case series of 12 patients**

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**Background:** Coronavirus disease 2019 (COVID-19) has a complex connection to cardiovascular system. COVID-19 infection has been proven to cause significant dysfunction in lung, heart, and endothelial cells. Therefore, patients with complex congenital heart lesions have a high risk of developing severe complications and worse outcomes. This paper aims to determine the characteristics and outcome of pediatric congenital heart disease (CHD) patients infected by COVID-19 at Sanglah hospital.

**Case Summary:** Within the period of March 2020 to February 2021, there were 12 cases of pediatric CHD accompanied by COVID-19 infection, which consists of 8 females and 4 males within the age of 6 days to 18 years. Based upon symptomatic CHD classification, there were 4 cyanotic CHD cases and 1 acyanotic case, respiratory problems were reported in all 5 cases. These are pneumonia in 4 cases and respiratory distress caused by hyaline membrane disease (HMD) in 1 case. 2 cases require mechanical ventilation. The outcome of all inpatient cases were favorable.

**Discussion:** To date, there are only few scientific evidence detailing how COVID-19 affects CHD. We were unable to calculate the correlation analysis since the population sample was too small. The most severe cases that requires mechanical ventilation had comorbidities in the form of malnutrition and down syndrome. From the perspective of pathophysiology, one of the most important factor determining outcome was the severity of CHD itself. Other contributing factors were COVID-19's destructive effect on heart tissue and co-infection by other microorganism.

**Keywords:** COVID-19 • CHD • sanglah hospital • outcome.