The outcome of pregnancy in adult patients with pulmonary hypertension associated with uncorrected congenital heart disease – a substudy of Jogjakarta COHARD-PH registry, Indonesia

Anggoro Budi Hartopo, Diah Wulan Anggrahini, Lucia Kris Dinarti

Department of Cardiology and Vascular Medicine Faculty of Medicine Universitas Gadjah Mada – Dr. Sardjito Hospital Yogyakarta, Indonesia

Background: While in developed country the congenital heart diseases (CHD) in adults mostly have been repaired during childhood, in developing countries it remains undiagnosed until symptoms of pulmonary hypertension developed. Most adults with uncorrected CHD are women, who are expecting pregnancy. Unfortunately, pulmonary hypertension due to uncorrected CHD complicates the pregnancy and increase the maternal mortality rate. We aim to investigate the outcome of pregnancy in adult patients with pulmonary hypertension associated with uncorrected CHD.

Methods: We retrieved the data from the Jogjakarta COgenital HeARt Disease and Pulmonary Hypertension (COHARD-PH) Registry, Indonesia. The COHARD-PH registry was initiated in 2012. The registry has been performed in Dr. Sardjito Hospital Jogjakarta, Indonesia, a national referral hospital. The data of demographics, clinics, obstetrics and echocardiography among pregnant uncorrected CHD patients was collected and reviewed. The outcome of pregnancy in our hospital was recorded. The descriptive statistics was applied for this study.

Results: We retrieved 66 pregnant uncorrected CHD patients. The mean age was 29 years old. The majority came to our hospital in the end second trimester of pregnancy. Mostly due to dyspnea. Uncorrected atrial septal defect (ASD) is the most prominent defect (88 %), followed by ventricular septal defect (6 %) and patent ductus arteriosus (6 %). More than 90 % of patients had developed pulmonary hypertension. Planned sectio caesarea were mostly performed procedure. The mortality rate was 9 % (6 out of 66 patients). The severe pulmonary hypertension based on echocardiography parameter, proof of Eisenmenger syndrome and oxygen desaturation was associated with mortality.

Conclusion: More than 90 % of pregnant patients with uncorrected CHD had developed pulmonary hypertension. The mortality rate of pregnant patients with uncorrected CHD was 9 %. The mortality was influenced by severe pulmonary hypertension, Eisenmenger syndrome and oxygen desaturation.

Keywords: pulmonary hypertension, congenital heart disease, pregnancy, mortality