

Risk of cardiovascular complications in idiopathic nephrotic syndrome

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Abstract

Background: Risk of cardiovascular complications exists in patients with Idiopathic Nephrotic Syndrome (INS). These patients frequently have several risk factors, such as types of INS, hypertension, obesity, nephrotic dyslipidemia, long term treatment with steroids.

Aim and Objectives: The aim of this study was to evaluate the cardiovascular complications and its relation to different types of INS.

Methods: All INS children in Pediatric Nephrology Outpatient Clinic of dr. Soetomo Hospital, Surabaya were included in this cross-sectional study between April and June 2016. They were three groups, group 1 Frequent Relaps NS (FRNS), Steroid Dependent NS (SDNS), and Steroid Resistant NS (SRNS). The medical records of each patient were reviewed for the following information: age, gender, and age at diagnosis, treatment of steroid, BMI, and blood pressure. Blood samples were collected to determine routine biochemical parameters. Echocardiography was performed to measure Left Ventricular End Diastolic Dimension (LVEDD), Left Ventricular Mass (LVM), and Ejection fraction (EF). Statistical analysis using Spearman correlation test.

Results: Fifty two INS children consisted of 17 FRNS, 17 SDNS, and 18 SRNS were included. Mean of Left Ventricular End Diastolic Diameter (LVEDD) in SRNS was the highest with 3.9cm (95%CI 3.5 to 4.2) in SRNS, 3.2cm (95%CI 2.9-3.5) in SDNS, and 3.3cm (95%CI 2.9 to 3.7) in FRNS ($P=0.032$). Ejection Fraction was not significantly different between 3 groups. Types of INS was significantly correlated with increased LVEDD ($P=0.04$, $r=0.281$), increased LVM index ($P=0.047$, $r=0.276$).

Conclusion: Types of INS correlates with cardiovascular complications and SRNS had the worst cardiac complications

Biography

Evisina Hanafiati Frans is working as a Faculty at Airlangga University, Indonesia.

