



PD021

Paediatric Cardiology & Congenital Heart Disease • Poster Presentation

ANTHROPOMETRIC PARAMETERS AND THEIR RELATIONSHIP WITH LEFT VENTRICULAR MASS IN INFANTS AND TODDLERS

Maryam O. Usman,¹ Nuhu Abubakar,² Cyprian Umeoguaju,³ Ibrahim Aliyu,⁴ Mustafa O. Asani⁴

Stand: POSTER #PD021 | **Venue:** Poster Exhibition Hall & Gallery - Eko Convention Centre | **Online Ref:** <https://nigeriancardiacsociety.com/abstracts/PD021>

1 Federal Teaching Hospital Gombe, Gombe State, Nigeria.

2 Federal Medical Center Nguru, Yobe State, Nigeria.

3 East Midlands Congenital Heart Center, Leicester, United Kingdom.

4 Aminu Kano Teaching Hospital, Kano State, Nigeria.

BACKGROUND: Anthropometric measurements are quantitative measurements of the human body and they are valuable tools in assessing nutritional status and growth, establishing a baseline and also measurement of response to treatment or progression of a disease condition; especially in children. The aim of this study is to determine the relationship between anthropometric parameters and left ventricular mass (LVM) in children with SAM.

METHODOLOGY: One hundred and thirty-two children aged 6 to 36 months were recruited from Primary Health Care Centres (PHCCs) in Gombe Local Government Area, Gombe State. Their anthropometric parameters (weight, height, mid-upper arm circumference (MUAC), body surface area (BSA), and body mass index (BMI) were measured/derived). Their left ventricular indices were also measured using a two-dimensional echocardiography. The mean and standard deviations of the continuous variables were determined while discrete variables were expressed as frequencies. Both linear and multiple regression were used to determine the correlation/relationship between anthropometric parameters and left ventricular mass.

RESULTS: The mean weight and height were 8.7 ± 61.4 kg, 75 ± 65.8 cm, respectively. Body surface area and BMI had mean of 0.43 ± 0.05 m² and 15.5 ± 1.5 kg/m², respectively. The mean MUAC was 14.2 ± 0.8 . The mean LVM was 26.2 ± 7.8 g. Weight, height and BSA had determination coefficients of 0.327, 0.293 and 0.345 for LVM in linear regression model. However, in multiple regression model, none of these anthropometric indices had significant relationship with LVM

CONCLUSION: Some of anthropometric indices had direct linear relationship with LVM but none of them can be used to estimate/predict LVM in infants and toddlers.

ALLIED PROFESSIONALS –AP

Keywords: Infants, toddlers, anthropometry, left ventricular mass, parameters, indices