

INTISARI

Latar belakang: Penyakit jantung bawaan (PJB) merupakan kelainan kongenital terbanyak pada anak, berupa abnormalitas struktur makroskopis jantung atau pembuluh darah besar intratoraks. Tindakan pembedahan jantung terbukti memperbaiki status nutrisi pada anak, namun belum ada penelitian di Indonesia mengenai perbaikan status gizi setelah penutupan defek transkateter.

Tujuan: membandingkan status gizi pada pasien anak dengan PJB sebelum dan setelah penutupan defek jantung transkateter.

Metode: Penelitian ini menggunakan desain *cohort retrospektif* dengan subjek penelitian pasien anak berusia 0 sampai 18 tahun dengan PJB (*ventricle septal defect*, *atrial septal defect* atau *patent ductus arteriosus*) yang dilakukan tindakan penutupan defek transkateter di RSUP dr.Sardjito periode Januari 2014-Desember 2018. Sample diambil dari berkas rekam medis pasien, kemudian dinilai status gizi berdasarkan *z-score* parameter *weight-for-age* (WAZ), *height-for-age* (HAZ) dan *weight-for-height* (WHZ) atau *bodymass-index-for-age* (BMI-for-age). Dilakukan analisis dengan uji *Pairwise Comparison Bonferroni* dan uji *Wilcoxon* untuk mengetahui hubungan penutupan defek jantung dengan perubahan status gizi pada 1, 4 dan 10 bulan setelah penutupan defek.

Hasil: Didapatkan 145 data pasien anak PJB yang menjalani penutupan defek jantung transkateter, 30,4% mengalami malnutrisi (gizi buruk dan gizi kurang). Prevalensi gizi baik pada saat penutupan defek dengan 1, 4, 10 bulan setelah penutupan defek berturut-turut: 69,6%; 75,1%; 89%; 91%. Pemantauan *mean* WHZ atau BMI/age *z-score* pada saat penutupan defek dengan 1, 4, 10 bulan setelah penutupan defek: -1,29; -0,97; -0,57; -0,47. Hasil ini signifikan berdasarkan uji *Pairwise Comparison Bonferroni* dan uji *Wilcoxon* dengan nilai $p=0,000$ ($p<0,05$).

Kesimpulan: Didapatkan prevalensi malnutrisi 30,4% pada pasien PJB dan penutupan defek jantung transkateter terbukti memperbaiki status nutrisi pada 1, 4 dan 10 bulan setelah penutupan defek.

Kata kunci: penyakit jantung bawaan, kateterisasi jantung anak, perbaikan status gizi.

ABSTRACT

Background: Congenital heart disease (CHD) is the most common congenital abnormality in children, in the form of abnormal macroscopic structure of the heart or intrathoracic large blood vessels. Heart surgery has been shown to improve nutritional status in children, but there has been no research in Indonesia regarding changes in nutritional status after transcatheter closure of heart defect.

Objective: Compare nutritional status in pediatric patients with CHD before and after transcatheter closure of heart defect.

Methods: A retrospective cohort design in pediatric patients aged 0 to 18 years with CHD (ventricle septal defect, atrial septal defect or patent ductus arteriosus) which performed transcatheter closure of heart defects in dr. Sardjito Hospital in January 2014-December 2018. Nutritional status assessed based on z-score parameters of weight-for-age (WAZ), height-for-age (HAZ) and weight-for-height (WHZ) or bodymass-index-for-age (BMI-for-age). Analysis was done by Pairwise Comparison Bonferroni test and Wilcoxon test to determine the relationship of transcatheter closure of heart defect with changes in nutritional status at 1, 4 and 10 months after surgery.

Results: Obtained 145 data of CHD pediatric patients undergoing transcatheter closure of heart defects, 30.4% were malnourished. The prevalence of good nutritional status at the time of defect closure by 1, 4, 10 months after closure respectively: 69.6%; 75.1%; 89%; 91%. Monitoring of the mean WHZ or BMI / age z-score at the time of closing the defect by 1, 4, 10 months after surgery: -1.29; -0.97; -0,57; -0.47. This result is significant based on the Pairwise Comparison Bonferroni test and the Wilcoxon test with a value of $p = 0,000$ ($p < 0.05$).

Conclusion: The prevalence of malnutrition was 30.4% in patients with CHD and transcatheter closure of heart defect was shown to improve nutritional status.

Keywords: congenital heart disease, cardiac catheterization of children, improvement of nutritional status.