Outcomes of patients diagnosed with ventricular septal defect (vsd) enrolled in z benefit package in a tertiary hospital in davao city philippines

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Abstract

Statement of the problem: Congenital Heart Diseases (CHDs) are medically and economically catastrophic. Hence, the Case Type Z Benefit Package (ZBP), a government-owned health-financing scheme, was started in Southern Philippines Medical Center Heart Institute (SPMCHI) to fund the surgical treatment of pediatric patients with CHDs, especially the indigents in Mindanao. Despite the upsurge in screening and surgical management of VSD in the region, there's an inadequate local data for this population and scarce information about the outcomes of VSD patients enrolled in ZBP. **Methodology:** A retrospective evaluation of the outcomes in all ZBP patients who underwent VSD patch closure from 2016 to 2018 was done. Multivariate logistic regression analysis was performed to identify the risk factors for major adverse events (MAEs). **Findings:** A total of 59 charts of VSD patients under ZBP were reviewed. The median age was five years old. Three deaths (5.1%) occurred in this group post operatively. Other MAEs seen after surgical correction was intracranial bleed due to arteriovenous malformation, in one patient, and bradycardia in two patients, one requiring a permanent pacemaker. A prolonged mechvent time (> 24 hours), ICU stay (>3 days), and hospital stay (>7 days) post operatively were significant factors of MAE. Clinical characteristics such as a male sex, VSD size of >6mm, subaortic VSD, and a z score of < -2 (underweight) to < -3 (severely underweight) for weight, < -2 (stunted) to < -3 (severely stunted) for height posed a higher risk of MAE but were not significant. There was no difference in the outcomes between patients admitted in the ward (zero ZBP group) and patients admitted in private rooms (co-pay ZBP group). **Conclusion:** VSD closure is an established safe procedure but still with reported adverse events. In this institution, zero ZBP and co-pay ZBP patients received the same clinical benefits.

Recent Publications

1. Daley M, Brizard C, Konstantinov I, Brink J, Kelly A, Jones B et al. Outcomes of Patients Undergoing Surgical Management of Multiple Ventricular Septal Defects. Seminars in Thoracic and Cardiovascular Surgery. 2019;31(1):89-96.
2. Ergün S, Genç S, Yildiz O, Öztürk E, Kafalı H, Ayyıldız P et al. Risk Factors for Major Adverse Events after Surgical Closure of Ventricular Septal Defect in Patients Less than 1 Year of Age: A Single-Center Retrospective. Brazilian Journal of Cardiovascular Surgery. 2019;34(3).
3. Rao P, Harris A. Recent advances in managing septal defects: ventricular septal defects and atrioventricular septal defects. F1000Research. 2018;7:498.
4. Gabriels C, De Backer J, Pasquet A, Paelinck B, Morissens M, Helsen F et al. Long-Term Outcome of Patients with Perimembranous Ventricular Septal Defect: Results from the Belgian Registry on Adult Congenital Heart Disease. Cardiology. 2016;136(3):147-155.
5. Schipper M, Slieker M, Schoof P, Breur J. Surgical Repair of Ventricular Septal Defect; Contemporary Results and Risk Factors for a Complicated Course. Pediatric Cardiology. 2016;38(2):264-270.



Biography

Dr. Cecile T. Malasig is a graduate of the University of the East Ramon Magsaysay Memorial Medical Center school of Medicine during the year 2014. She finished her 5-year general surgery residency training at the Southern Philippines Medical Center, Davao City, last 2020. She is currently a junior consultant of the Department of General Surgery in Zamboanga City Medical Center, the tertiary referring hospital of the Zamboanga Peninsula.

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Biography

Dr. Bonnie S. Pedregosa finished the degree of Doctor in Medicine at Davao Medical School Foundation during the year 2014. He finished his 5-year general surgery residency training at the Southern Philippines Medical Center, last 2020. He is currently practicing as a general surgeon at M'lang, North Cotabato and Isulan, Sultan Kudarat.

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Biography

Dr. Mark Edward Anthony M. Maruya is a distinguished cardiac surgeon in Davao City. He is one of the founders of Southern Philippines Medial Center Heart Institute (SPMCHI) and has dedicated his career of more than 20 years in improving the lives of heart patients in the region and beyond. Dr. Maruya has operated and treated patients in Davao Doctor's Hospital and in SPMCHI where he served as the head and has been a member of the board of its foundation, The Gerry Cunanan Heart Foundation. He has also served as the Training Officer of Department of Surgery from 2005 to 2008 and as the Chairman of the Department of Surgery from 2017 to 2020 in SPMC. Before his retirement, he established the Cardiovascular Fellowship Training Program in SPMCHI which was accredited last 2021. Currently, he continues to serve the people as the Vice Mayor of the province of Malita.

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Notes/Comments: