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SHORT COMMUNICATION

Comprehensive Nursing Care for Pediatric Patients with Congenital Heart Diseases: A Focus on Ventricular Septal Defect

Atención Integral de Enfermería en Pacientes Pediátricos con Cardiopatías Congénitas: Un Enfoque en la Comunicación Interventricular

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ABSTRACT

During 2022, Peru faced significant challenges in managing congenital heart diseases, particularly ventricular septal defect (VSD), identified as one of the most common. According to the National Institute of Child Health San Borja (INSNSB), congenital heart diseases accounted for 30% of birth defects and were often associated with genetic syndromes such as trisomy 21. Early diagnosis and specialized care were essential to prevent severe complications like heart failure and developmental delays. Postoperative management in cardiovascular intensive care units was key to patient recovery. Protocols were implemented, including continuous hemodynamic monitoring, infection prevention, pain control, and respiratory therapy. Nursing staff played a crucial role, organizing care through the nursing process, which involved assessment, diagnosis, planning, implementation, and evaluation. During the assessment, diagnoses such as decreased cardiac output and ineffective tissue perfusion were identified. Additionally, education and emotional support for families were prioritized, strengthening the bond between the healthcare team and caregivers. During this period, the capacity of pediatric intensive care units was enhanced, although challenges such as unequal access to specialized services in rural areas persisted.

In conclusion, the comprehensive care provided in Peru allowed significant progress in the treatment of VSD and other congenital heart diseases, contributing to improved quality of life for patients and their families.

Keywords: Congenital heart diseases; Ventricular septal defect; Intensive care; Nursing process; Pediatric care.

RESUMEN

Durante el año 2022, Perú enfrentó importantes desafíos en el manejo de las cardiopatías congénitas, especialmente la comunicación interventricular (CIV), la cual fue identificada como una de las más comunes. Según el Instituto Nacional de Salud del Niño San Borja (INSNSB), las cardiopatías representaron el 30% de los defectos de nacimiento, y en muchos casos estuvieron asociadas a síndromes genéticos como la trisomía 21. El diagnóstico temprano y la atención especializada resultaron fundamentales para prevenir complicaciones graves como insuficiencia cardíaca y retraso en el desarrollo infantil. El manejo postquirúrgico en unidades de cuidados intensivos cardiovasculares fue clave para la recuperación de los pacientes. Se implementaron protocolos que incluyeron monitoreo hemodinámico continuo, prevención de infecciones, control del dolor y fisioterapia respiratoria. El personal de enfermería desempeñó un papel crucial, organizando la atención mediante el proceso de enfermería, que abarcó valoración, diagnóstico, planificación, ejecución y evaluación. Durante la valoración, se identificaron diagnósticos como disminución del gasto cardíaco y perfusión tisular ineficaz. Además, se priorizó la educación y el soporte emocional a las familias, lo que fortaleció el vínculo entre el equipo de salud y los cuidadores. En este periodo, se mejoraron las capacidades de las unidades de cuidados intensivos pediátricos, aunque persistieron desafíos como la desigualdad en el acceso a servicios especializados en regiones rurales.
En conclusión, la atención integral brindada en Perú permitió avances significativos en el tratamiento de la CIV y otras cardiopatías congénitas, contribuyendo a mejorar la calidad de vida de los pacientes y sus familias.

Palabras clave: Cardiopatías congénitas; Comunicación interventricular; Cuidados intensivos; Proceso de enfermería; Atención pediátrica.

The impact of congenital anomalies, particularly congenital heart disease, has been a significant problem globally and regionally. In Peru, during 2022, there was a constant effort to address these conditions through a multidisciplinary approach and implementing health policies that would allow comprehensive and effective care for affected patients, especially in the pediatric population.

According to the World Health Organization (WHO), congenital anomalies are responsible for a high proportion of neonatal deaths and years of healthy life lost due to disability and premature death. In Peru, this situation was reflected in statistics from the Instituto Nacional de Salud del Niño San Borja (INSNSB), which reported that congenital heart disease accounted for approximately 30% of all congenital disabilities. Among these conditions, ventricular septal defect (VSD) was identified as one of the most common, underscoring the need for adequate and timely management.

VSD, characterized by a defect in the interventricular septum that allows abnormal blood flow between the ventricles, frequently occurs in association with other congenital anomalies or as part of genetic syndromes, such as trisomy 21, trisomy 13, or trisomy 18. In Peru, the INSNSB emphasized that early detection of these conditions was fundamental to reducing serious complications, such as heart failure, pulmonary hypertension, and deficiencies in child growth and development. During these years, efforts were made to improve prenatal and neonatal diagnosis through echocardiography and other advanced technologies.

Managing patients with VSD required a comprehensive approach that included medical, surgical, and nursing interventions. Corrective surgery was performed in the most severe cases where the defects did not close spontaneously during infancy. These surgical interventions, primarily performed in specialized institutions such as INSNSB, were mainly aimed at repairing the defect and preventing long-term

complications. However, the success of these surgeries depended largely on postoperative management, which involved care in cardiovascular intensive care units.

In the INSNSB cardiovascular intensive care units, postsurgical management of pediatric patients focused on hemodynamic stabilization, infection prevention, pain control, and continuous monitoring of clinical parameters. During this period, evidence-based care protocols were implemented, including advanced hemodynamic monitoring, respiratory therapy, and prophylactic antibiotics to prevent infective endocarditis. These strategies significantly improved the survival rate and reduced postoperative complications.

In this context, the role of the nursing staff was crucial. According to the nursing process framework, care was organized into five stages: assessment, diagnosis, planning, implementation, and evaluation. In the assessment stage, tools such as Marjory Gordon's 11 functional patterns were used to identify actual and potential problems in pediatric patients. These included diagnoses such as decreased cardiac output, ineffective tissue perfusion, and dysfunctional ventilatory response to weaning. These issues were prioritized to ensure that interventions were aligned with the most pressing patient needs.

Based on the NOC and NIC taxonomies, care planning allowed the establishment of clear and measurable objectives and the selection of the most appropriate interventions for each case. The interventions implemented included continuous monitoring of vital signs, respiratory physiotherapy to prevent atelectasis, pain control using pediatric assessment scales, and infection prevention through rigorous asepsis and antisepsis practices. In addition, emotional support was provided to patients and their families, recognizing the psychological impact of these situations.

The nursing staff also played a key role in educating the families about the care needed at home after hospital discharge and the warning signs that could indicate complications. This effective communication was key to ensuring continuity of care and preventing hospital readmissions. Likewise, nursing promoted a humanized approach, focusing on the patient's individual needs and strengthening the bond between the health team and the families.

In the Peruvian context, congenital heart disease care was marked by important advances in infrastructure and training. During 2022 and 2023, the capacities of pediatric intensive care units were strengthened at the national level, with emphasis on the acquisition of modern equipment and continuous training of medical and nursing staff. These improvements made it possible to deal with highly complex cases more effectively, reducing mortality and improving patients' quality of life.

Despite these advances, significant challenges remained, such as expanding access to specialized services in regions far from Lima and strengthening prenatal screening programs. Inequity in the distribution of health resources was an obstacle that limited timely care in some rural regions of the country. In this regard, the importance of implementing public policies that promote the decentralization of services and guarantee universal health coverage was recognized.

In conclusion, the management of congenital heart disease in Peru in 2022 reflected a commitment by health institutions to improve care for pediatric patients. Through a comprehensive approach that combined medical, surgical, and nursing intervention, progress was made in the quality of care provided to children with VSD and other congenital heart conditions. This joint effort not only improved clinical outcomes but also contributed to the humanization of care and the strengthening of the country's healthcare system.

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CONFLICT OF INTEREST

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