

Case Report

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Nursing care of children with tumor benign cardiac in ventricular left under the focus of Virginia Henderson.

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Abstract

Keywords

cardiac tumor,
rhabdomyoma,
nursing process,
Virginia Henderson,
taxonomy NANDA,
NIC,
NOC.

This is a case study that was performed on a newborn female with benign tumor in the left ventricle of the heart, Rhabdomyoma. With the aim of providing nursing care, through which we sought to achieve a high level of satisfaction of their needs during their hospital stay. The process of nursing care based on the theoretical concepts of Virginia Henderson was used. For its development, we observed and analyzed the needs of the newborn, nursing diagnoses were designed based on the taxonomy of the North American Nursing Diagnosis Association (NANDA, for its acronym in English); They were planned and evaluated strategies to promote nursing care.

Conclusion. The nursing process is ideal for the early detection of altered human needs. This method allows for specialized interventions to ensure safe and warm attention on the human environment.

Introduction

The primary cardiac tumors are rare and rare at any age and are usually benign (97%). The most common primary tumors are benign rhabdomyomas but the condition of the body that compromise, have special clinical relevance and unpredictable prognosis. (Cigarroa et al 2005).

In children, the incidence is 0.27% (Stiller et al 2001). These tumors are benign by histological characteristics; however, they can cause various complications depending on the tumor site, involving structures, clogging and damaging is located.

The most common primary tumors are benign rhabdomyomas (60%), fibroids (12%), myxoma (10%), intracardiac teratomas (25%) and hemangiomas. His prognosis mainly depends on its location. 1, 3-5 (Cigarroa et al 2005, Stiller et al 2001 and Kiaffas et al 2002)

Rhabdomyoma was first described by von Reckling Hausen in 1862 in a patient with neurofibromatosis. It is a circumscribed tumor, lobed, whitish or grayish; It is multiple up to 90% of cases; generally it found in the thickness of the heart muscle. (Cigarroa et al 2005) Until the seventies, the study of choice for diagnosis was angiocardiogram. Later he was replaced by echocardiogram and 1982. De Vore made in utero diagnosis of tumor, they have since been increased reports of these lesions detected from fetal life. (Kiaffas et al 2002 (Tworetzky et al 2003)

The diagnosis is usually performed between 20-30 weeks gestation by ultrasonography. Fetal impact is determined by the location and size of the tumor, which can compromise blood flow, interfere with myocardial function or trigger cardiac arrhythmias which can lead to death in utero.

Because it is an extremely rare entity, if a patient presents with tumor benign heart left ventricle, Rhabdomyoma intracardiac whose diagnosis was made in postnatal stage presenting their respective plans of nursing care plans under the focus of the theory of Virginia Henderson.

Virginia Henderson

Virginia Henderson developed his theoretical concepts influenced by the current integration, to conceptualize the person. (Cigarroa et al 2005) She relates that humans have a variety of basic needs to be met; This is achieved when the person has the knowledge, strength and will to cover (independence); when an element is missing and is not satisfied, health problems (dependence) arise.

The source of difficulty is the cause of dependence of the individual, either for lack of strength, lack of knowledge or lack of will. This can take the person to a level of independence or dependence, creating a relationship between the nurse and the person: the substitution, help, guidance or company. Nurse-doctor or nurse-health team relationship can be independent when the activity itself is nursing; interdependent when multidisciplinary participation is essential; and

dependents when the responsibility for action lies with another professional of the health. (Stiller et al 2001 and Arango et al 2012)3.4

Methodology

The following actions were taken; choice newborn in neonatal intensive care service of the National Institute of Cardiology Ignacio Chavez; request informed consent of the mother; extensive literature review for the construction of the framework; nursing assessment format for the assessment of basic needs of children 0 to 5 years from the National Institute of Cardiology; Data were collected through an assessment tool cardiovascular nursing, it was comprehensive and focused manner. The variables analyzed were 14 human needs: oxygenation, nutrition and hydration, elimination of waste products from the body, move and maintain proper posture, sleep and rest, select the appropriate attire, maintain body temperature, maintaining personal hygiene, avoid environmental hazards and avoid harming others, communicate with others being able to express emotions, needs, fears or opinions; live according to their values and beliefs, work and feel fulfilled, participate in recreational activities, learn, discover and satisfy curiosity. nursing diagnoses using NANDA taxonomy were made, subsequently the planning and implementation of nursing interventions for prevention, nesting, minimizing or correcting problems and needs as well as health promotion based on the model of Virginia Henderson was drafted , development of nursing diagnoses, planning and execution of specialized nursing interventions under the relevant ethical rigor, and outcome assessment.

Case Report

Background

Person: He newborn female patient. 51 centimeter size; 3 kg weight, BMI 11.53, 13 days old, female. Svital Ignos: heart rate 116 beats per minute, respiratory rate 28 breaths per minute, 95 on blood pressure 48, temperature 36. 3 degrees. It is referred and admitted to the National Cancer Institute to study and monitoring of left ventricular cardiac tumor

Environment: Originally the State of Mexico, Mexico. Single parent family is extensive. It is the younger of two sisters, taking his older sister 3 years. His mother aged 24 is from the state of Mexico,

he finished high school, housework is dedicated declares that their beliefs and values do not interfere with the treatment of his daughter, denies substance abuse, he claims to have a hole in the nose made in 2014. his father is originally from Puebla, Mexico, 45 years old, finished high school education, is married, works as a policeman denies substance abuse, has 3 children of school age, provides financial support to his mother, declaring history of death sudden in his family. Lives and live with his maternal grandparents. His grandmother is dedicated to housework and grandfather, economic provider family, works as a grocery merchant flea market; both function as a network of moral and economic support. The house where they live is located in an urban area, is proper and have public services and domiciliary, coexist with animals.

Health:

Perinatal history: It is the product of the second deed of his mother. She and her sister were born by Caesarean section. There was adequate prenatal care. pregnancy is seen at week 12, starting the intake of folic acid and iron. three ultrasound were performed, which are reported as normal. Mother denies threats of abortion, preeclampsia and gestational diabetes. Pursuing a urinary tract infection during the second quarter, receiving unspecified treatment. Born in a hospital environment, at 40 weeks of gestation abdominally start due to lack of labor. He weighed 3 kg, had a size of 50cm, breathed at birth. birth breath is identified, performing an echocardiographic tracking, finding a tumor in the ventricle systolic, whereby is referred to this Institute.

Medical history: He has been hospitalized since birth. surgical events, traumatic events, transfusions, allergies, exantemáticos signs refuse. It was administered 0.5 mg per kilogram of furosemide, but this drug was suspended today.

Psychological evolution: Within normal parameters except anxious moderate to severe depressive mood.

Current condition:

Sistólico- breath at birth has found echocardiogram is performed where cardiac tumor in the left ventricle.

Physical examination: The patient is conscious, active and reactive. They are found traces of jaundice. symmetrical eyes, reactive pupils, nostrils permeable,

normochromic pharynx pinnae with proper implantation, cylindrical neck without lymphadenopathy, normolíneo Thorax, well ventilated lung fields, precordium normodinámico- rhythmic heart sounds. ejection murmur is detected in LL 4e, second normal noise. Abdomen was soft, but without pain, peristalsis present, integrate and siméticas limbs, symmetrical pulses suitable intensity and amplitude. Genitals chords age and gender. Oxygen saturation 92%.

Paraclinical: blood count, kidney function tests, coagulation time is requested. ECG precordial 12 lead was performed, obtaining sensual rhythm Qrs + 120 grs 100 msec, QTM 370 msg, QTc 448 mse, pr 120 msg, FVM 120 lpm, levorrotado isodofasismo v1-v4, biventricular hypertrophy right predominance isodifásica P wave (+ -) v1-v3. Cytus chest radiograph and abdominal solitus bronqual levocardia ICT is performed. 62% rotated very soft, not assessable pulmonary flow through poor technique, aortic arch left impressed. No echocardiograms, CT scans or magnetic resonance imaging were performed.

It is hemodynamically stable heart rates and blood pressures within appropriate limits for the age. With balance -30 and 1.7 ml urine output per hour over kilogram. Systolic Murmur LL 4e. It is with ventilatory support with supplemental oxygen nasal prongs. It has a proper breathing pattern and maintains normal saturations, showing well ventilated without rattling or wheezing fields. Gastrointestinal feeding is suitable womb, showing tolerance. Abdomen was soft depressible painlessly with peristalsis present no data Afebril systemic inflammatory response without antibiotic treatment. It is conscious, active and reactive spontaneous movements. His pupils are isocóricas normorefléxicas. At risk of heart failure

Diagnosis: Benign heart tumor. cardiac tumor is observed in the left ventricle. It is suspected Rhabdomyoma. restrictive foramen ovale, severe mitral regurgitation. Persistent ductus arteriosus sinus. His condition is congenital.

Table 1

Nursing Activities	Evaluation					
Enhancing security. Activities: -Listen fears of the family. - Helping the family to identify the factor It is to increase the sense of security. -To the patient to use capacity responses troubleshooting They have proved successful in the past. -Present changes gradually. -	Evaluation (NOC)					
	Codiogo NOC. 1300 Acceptance of health		Target score: 15			
	Indicators	Pre intervention	Post intervention			
	Expresses feelings and verbalize	3	4			
	Coping with the health situation	4	5			
	It adapts to changing health	4	5			
	Scala measurement	1 = always demonstrated	2 = almost always shown	3 = Moderately demonstrated	4 = Slightly shown	5 = never shown

Table 2

Nursing Activities	Evaluation					
Teaching: (Disease process) Activities: Assess current level of knowledge of caregiver / patient related process disease. -Describe disease process. -Avoid empty promises reassuring. To instruct the caregiver / patient about signs and symptoms that should be reported - Inform the caregiver / patient about when and where the proceedings will take place and treatments. -Strengthen confidence in the personnel involved To explain the purpose of the procedures and treatments. -Give time caregiver / patient to ask questions and discuss your concerns.	Evaluation (NOC)					
	Codiogo Noc: 5602 Teaching: disease process		Target score 20			
	Indicators	Pre-intervention		Post intervention		
	Acceptance of health	Two		4		
	Family support	One		5		
	Family adjustment to Hospitalization	Two		5		
	Measur ement scale	1 = always demon strated	2 = almost always shown	3 = Moderately demonstrated	4 = Slightly shown	5 = never shown

Table 3

Nursing activities	Evaluation					
<p>Decreased anxiety. Activities: -Use a serene approach of tranquility. -Try to understand the perspectives of family about your stressful situation. Listen carefully to the family -To help the family to identify situations qu and precipitate anxiety.</p>	Evaluation (NOC)					
	NOC code: (1300) acceptance of health		Target score 20			
	Indicators		Pre intervention	Post intervention		
	Renounces the concept prior to health		Two	4		
	It was adapted to the change in health status		3	5		
	Expresses feelings		Two	4		
	Scala measurement	1 = always demonstrated	2 = almost always shown	3 = Moderately demonstrated	4 = Slightly shown	5 = never shown

**Table 4
Nursing Care Plan**

Nursing activities	Evaluation					
<p>Improved integrity skin tissue and mucous membranes Activities: -Monitor conditions lips, tongue, gums and mucous membranes for moisture, color, texture, and presence of traces of infection. - Teach proper family care if symptoms arise Stomatitis. - Inform the medical area if signs and / or symptoms of infection occur. - Record in the format of clinical nursing records any changes or presented by the patient response according to NOM - 168 SSA - 1998 records clinicians. - Providing information to the patient and family about the functioning of the drugs. - Inform patient immediately notify the oral mucosa lesions. - Implement precautions to prevent bleeding of the oral mucosa.</p>	Evaluation (NOC)					
	Noc code: 1808 Knowledge: Medication		Target score 20			
	Indicators		Pre-intervention	Post intervention		
	Valuation of side effects of drugs		3	4		
	Possible interactions of the medication		4	5		
	Oral lesions		One	4		
	Scala measurement	1 = Severe	2 = Substantial	3 = Moderate	4 = Slight	5 = None

Discussion

Intracardiac tumors are a rare entity; They have incidence 0.02% and only one in four is malignant (Reynen 1996).

Two mutations in tumor suppressor genes TSC1 and TSC2 are linked to the evolution of hamartomatous lesions classically manifested mental retardation, seizures, brain areas sclerosis and heart rhabdomyomas (Reynen Diaz 1996 and 2005). These tumors can have a wide spectrum of clinical manifestations, from no symptoms to sudden death; They described fetal hydrops, arrhythmias, airway obstruction input and output and heart stroke (Kiaffas 2002 and Lend 2010).

Rhabdomyoma is the most common intracardiac tumor in children. The most common symptoms are associated arrhythmias in 9-20%, with supraventricular tachycardias. Occasionally there heart murmur in 10-21% (Diaz Quiroz-Lopez Lizarraga 2005 and 2010) .2,3

Prenatal diagnosis is carried out in 20-33% of cases; the time when the diagnosis is made is at 28.4 ± 6 weeks of gestación.4

Rhabdomyoma is a benign tumor that in some cases, for obstructing the outflow tract of the left ventricle produces alarming symptoms. The incidence in the left ventricle is only 30% for cases and 53% in multiple. The appearance in the left atrium is very rare, according to the studied series. 2.3

Mortality of this disease is estimated at 25.4%; the most common cause is arrhythmia consecutive surgery (Verhaaren 2003).

It has been reported that nurses play an important role in the early identification of health problems in children, having a significant impact on prevention; so you should make use of instruments or assessments as the process of nursing care and Virginia Henderson model, which facilitates recognition of the altered needs, the degree of dependence and the source of difficulty concerning the person, in order to provide quality care aimed at solving problems.

References

1. Reynen, K., 1996. Frequency of primary tumors of the heart. *Am. J. Cardiol.* 77: 107.
2. Verhaaren, HA, Vanakker, O., De Wolf, D., 2003. Left ventricular outflow obstruction in rhabdomyoma of infancy: meta analysis of the literature. *J. Pediatr.* 143: 258-263.
3. Black, MD, Kadletz, M., Smallhorn, JF, 1998. Cardiac rhabdomyomas and obstructive left heart disease: histologically benign but not functionally. *Ann. Thorac. Surg.* 65: 1388-1390.
4. Bader, RS, Chitaya, D. Kelly, E., 2003. Fetal rhabdomyoma prenatal diagnosis, clinical outcome, and incidence of associated tuberous sclerosis complex. *J Pediatr .;* 143: 620-624.
5. Bittner, HB, Sharma, AD, Landolfo, KP, 2000. Surgical resection of an intracardiac rhabdomyoma. *Ann. Thorac. Surg.* 70: 2156-2158.
6. Quiroz Diaz, G., Vasquez Miner, JC, Garcia Ortegon, M. S., Flores Calderon, Octavio, Archundia García, A., 2005. neonatal cardiac Rhabdomyoma. *An.Med. Asoc. Med. Hosp. ABC.* 50 (2): 85-87.

Conclusion

Conduct a case study guide nursing professionals to provide comprehensive care for resolving problems or potential problems related to human needs affected by the disease, as mentioned by Virginia Henderson. Adopting a nursing model can provide guidance, both in promoting health and providing care services, not only within health institutions, but also outside them. Make a written plan indicates the order and priorities in the interaction with the individual; However, the welfare of the person may require constant situational plan or modification.

Then doing nursing is an essential part of the treatment, which is an aid for convalescence and rehabilitation of people with some altered necessity, as in our case though (Pichardo 2013) Most cardiac tumors childhood are benign, they can be life threatening because of their location and infiltration into the heart muscle, as can suggest structural heart disease, arrhythmias and intermittent cause cyanosis (Black 1998).

Symptoms depend on the size, mobility and location intracardiac tumor. Therefore, rhabdomyomas should be considered in, especially supraventricular differential diagnosis of heart failure, cardiomegaly, arrhythmia syncope, cardiac valvular disease and pulmonary embolism. Treatment should be individualized.

Over the past decade, the rate of surgery for primary cardiac tumors in children varies from 32 to 95% in the centers of tertiary care (Stiller 2001).

References

- Reyes Anaya, P., Rodríguez Rabago, MJ, 2013. Prenatal diagnosis of cardiac Rhabdomyoma. A case report. *Gynecol. Obstet. Mex.* 81: 477-481.
- Posada Arango, CA, 2012. Cardiac Rhabdomyomas and tuberous sclerosis: report of two cases in newborns. *Arch. Med. (Manizales).* 12 (2): 199-204.
- Argueta, ER, Jimenez, JR, Gonzalez, MK, Villela, C., Cordova, N., 2006. Mass intracardiac and tachycardia in a newborn. A case report. *Rev. Mex. Pediatr.* 73 (4): 177-179.
- Arnaiz, GP, Toledo, GI, Borzutzky, SA, Uzelay, MG, Heusser, RF, Garay, GF, 2006. Clinical behavior of cardiac tumors from fetus to adult: multicentric series of 38 patients. *Rev. méd. Chile.* 134 (9): 1135- 1145.
- Bader, RS, Chitaya, D. Kelly, E., 2003. Fetal rhabdomyoma prenatal diagnosis, clinical outcome, and incidence of associated tuberous sclerosis complex. *J Pediatr.* ; 143: 620-624.
- Bittner, HB, Sharma, AD, Landolfo, KP, 2000. Surgical resection of an intracardiac rhabdomyoma. *Ann. Thorac. Surg.* 70: 2156-2158.
- Black, MD, Kadletz, M., Smallhorn, JF, 1998. Cardiac rhabdomyomas and obstructive left heart disease: histologically benign but not functionally. *Ann. Thorac. Surg.* 65: 1388-1390.
- Chao, AS, Chao, A., Wang, TH, Chang YC, Chang, YL, Hsieh CC, Lien, R., Su, WJ, 2008. Outcome of antenatally diagnosed cardiac rhabdomyoma: Case series and a meta-analysis . *Ultrasound Obstet. Gynecol.* 31: 289-295.
- Cigarroa, JA, Garcia, Y., Gutierrez, LY, Jimenez S, Martinez A, Ortegón, J., 2005. cardiac Rhabdomyoma surgically treated successfully and literature review. *Arch Cardiol Rev Mex.* 75 (3): 113-117.
- Quiroz Diaz, G., Vasquez Miner, JC, Garcia Ortegón, M. S., Flores Calderon, Octavio, Archundia García, A., 2005. neonatal cardiac Rhabdomyoma. *An.Med. Asoc. Med. Hosp. ABC.* 50 (2): 85-87.
- Kiaffas, M., Powell, AJ, Geva, T., 2002. Magnetic resonance imaging evaluation of cardiac tumor Characteristics in Infants and Children. *Am. J Cardiol.* 89 (10): 1229-1233.
- Lendvay, T., Marshall, F. I, 2003. The tuberous sclerosis complex and Its highly varying manifestations. *Rev J Urol.*169: 1635-1642.
- Lynx, R., Gomez table Lopez, C., Arteaga, A. Montoya, JH, Vasquez, LM, 2009. cardiac Rhabdomyoma as manifestation of tuberous sclerosis. Report of two cases and review of the literature. *Rev. Colomb. Cardiol.* 16 (5): 224-228.
- Lizárraga-López, SL, Zarate-Castanon, P., Bobadilla-Aguirre, A., Melgoza-Arcos, ME, 2010. rhabdomyomas multiple intracardiac in a neonate with tuberous sclerosis. Report of a case. *Acta Pediatr. Mex.* 31 (4): 153-157.
- Lopez, N. Rodriguez, R., Vegas, G., De La Calle, M., Gonzalez, A., 2011. fetal cardiac tumors: sonographic diagnosis, prognosis and treatment. *Rev. Chil. Obstet. Gynecol.* 76 (3): 147-154.
- Miranda Chavez, I., Muñoz Castellanos, L., Buendía Hernandez, A., Faustro Aranda, A., Erdmenger Orellana, J. Ramirez Marroquín, S., 2004. Giant Rhabdomyoma intracardiac neonatally. A case report. *Arch. Cardiol. Mex.* 74 (1): 49-52.
- Pichardo, GG, 2013. Case study a person with valvular disease. *Reb. Mex. Enf. Cardiol.* 21 (1): 24-29.
- Reynen, K., 1996. Frequency of primary tumors of the heart. *Am. J. Cardiol.* 77: 107.
- Rios, J, 2012. Cardiac myxoma with prenatal diagnosis: Case report and literature review. *Rev Med Hered.* 23 (4): 247-250.
- SAVIO Benavides. A., Rodríguez Oliva, J., Garcia Morejon C., Garcia Guevara, C., Arencibia Faire, J., Ponce Bittar, J., 2009. Echocardiographic diagnosis of primary tumors of the heart of the fetus. *Rev. Cubana Pediatr.* 81 (4): 1-9.
- Stiller, B., Hetzerb, R., Meyerc, R., Dittricha, S., Peesd, C., 2001. Primary Cardiac Tumors: When is surgery necessary? *Eur. J. Cardiothorac. Surg.* 20 (5): 1002-1006.
- Tejero Hernandez, MA, Gomez Guzman, E., Tejero Mateos, I., Perez Navero, JL, Cruz Suarez de Lezo Conde, J., 2009. right and Wolff-Parkinson-White syndrome in an infant with atrial Rhabdomyoma sclerosis. *J. An. Ped.* 1 (1): 500-502.

- Tworetzky, W., McElhinney, DB, Margossian, R., MoonGrady, AJ, Sallee, D., Goldmuntz, E., 2003. Association Between cardiac tumors and tuberous sclerosis in the fetus and neonate. Am. J. Cardiol. 92 (15): 487-489.
- Verhaaren, HA, Vanakker, O., De Wolf, D., 2003. Left ventricular outflow obstruction in rhabdomyoma of infancy: meta-analysis of the literature. J. Pediatr. 143: 258-263.

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