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Case study

Intervenciones de enfermería a persona post operada de meningioma sustentadas en el modelo del autocuidado

Nursing interventions for a post-operative meningioma patient based on the self-care model

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Resumen

Introducción: Estudio de caso que aborda las secuelas neurológicas desarrolladas en una persona post operada de una resección de meningioma recidivante, para quien se implementaron planes de autocuidado con enfoque en la atención neurológica.

Objetivo: Elaborar un estudio de caso del paciente post operado con secuelas neurológicas mediante la implementación de planes de atención de enfermería basados en el modelo de Dorotea Orem, con el propósito de mejorar su calidad de vida.

Metodología: Se utilizaron fuentes legales nacionales e internacionales, siguiendo los principios de ética en investigación de salud, la ley general de salud, normas oficiales y la implementación del consentimiento informado. Se realizó la selección del participante con criterios de conveniencia para el autor, y los datos se obtuvieron mediante fuentes directas (entrevista, valoraciones) y fuentes indirectas (historia clínica).

Presentación del estudio de caso: Un hombre de 35 años con signos de probable recidiva de meningioma (parestesia en la lengua, disartria, cefalea e hipoacusia).

Plan de alta: Se realizó un plan de alta mediante la nemotecnia CUIDARME, y se ofreció continuo seguimiento mediante medios digitales.

Conclusiones: Se lograron alcanzar los objetivos establecidos mediante la implementación de planes de cuidado en enfermería y el plan de alta, se continúa trabajando con la persona y la familia en el hogar hasta la actualidad.

Palabras clave: intervenciones de enfermería, meningioma, neurorrehabilitación, autocuidado.

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Abstract

Introduction: Case study addressing the neurological sequelae developed in a person post-operated from a recurrent meningioma resection, for whom self-care plans with a focus on neurological care were implemented.

Objective: To elaborate a case study of the post-operated patient with neurological sequelae through the implementation of nursing care plans based on Dorotea Orem's model, with the purpose of improving his quality of life.

Methodology: National and international legal sources were used, following the principles of ethics in health research, the general health law, official norms and the implementation of informed consent. The selection of the participant was made with criteria of convenience for the author, and the data were obtained through direct sources (interview, assessments) and indirect sources (clinical history).

Case study presentation: A 35-year-old man with signs of probable recurrence of meningioma (paresthesia of the tongue, dysarthria, headache and hypoacusis).

Discharge plan: A discharge plan was made using the CUIDARME mnemonic, and continuous follow-up was offered via digital media.

Conclusions: The established objectives were achieved through the implementation of nursing care plans and the discharge plan, and the work with the person and the family at home continues to this day.

Keywords: Nursing interventions, Meningioma, Neurorehabilitation, Self-Care

Introducción

The case study is a fundamental tool to increase the body of knowledge of any profession, especially those related to the care of people. This tool has played an important role in the development of nursing, since it provides the opportunity to plan care for people with different altered health requirements, that is, with the requirements necessary for their health. This is described in Dorothea Orem's self-care model, which proposes that effective self-care is crucial for maintaining health and preventing disease, and defines three interrelated systems: the self-care system, the self-care deficit system and the nursing system.

In this sense, the present case study aims to describe the care and application of nursing interventions to a person with neurological sequelae caused by the resection of a meningioma, in order to improve his quality of life and that of her family.

Meningiomas are the most frequent brain neoplasms worldwide and nationally, the vast majority are benign and slow growing, however, this can lead to neurological symptoms in affected individuals, depending on the region where they are formed, and the clinical picture can be very varied and the diagnosis can be very incidental.[1,2]

The self-care model and the care process are used together with the purpose

of directing nursing interventions towards holistic care, in order to address the different spheres that affect the person. Likewise, the information for this study was collected through direct assessments, direct and indirect interviews, clinical records and databases, with which care plans were made for the person from a neurological and integral approach, with the aim of improving his quality of life and avoiding complications caused by neurological sequelae.

Likewise, a discharge plan was implemented that covered the current state of the person and the family, weighing the altered health requirements and prioritizing those that will have a greater impact on improving their quality of life, as well as a section of conclusions and recommendations for continuous improvement.

Objetives

General objective:

- To elaborate a case study of a person post-operated of a meningioma resection with neurological sequelae, implementing nursing care plans based on Dorotea Orem's model. The main purpose is to improve the quality of life of the affected person.

Specific objectives

- To identify by means of the neurological nursing assessment the universal requirements altered in the person with neurological sequelae caused by meningioma resection.
- Design nursing intervention plans for the care of the person with altered universal requirements.
- Evaluate the effectiveness of the nursing interventions implemented, seeking feedback and improvement in the person's quality of life.
- Elaborate a discharge plan according to the person's improvement, which supports the caregivers and the family in the continuity of the person's health restoration, guaranteeing the quality of life granted by the care.

Methodology

The case study was conducted with a qualitative, descriptive, cross-sectional approach and with a selection of the person using criteria of convenience for the author: availability, pathology of interest, disposition of the person and the family.

To obtain and select documentary information, a systematized search of the information was carried out using keywords such as nursing interventions, meningioma, neurorehabilitation and self-care, as well as the Boolean operators AND, OR, NOT, obtaining a total of 93 articles, of which 41 were selected from the databases of PubMed, Scielo, Elsevier, among others.

Likewise, data collection strategies were used from direct sources (directed interviews and implementation of the neurological assessment instrument) and indirect sources (consultation of the clinical record). A neurological assessment instrument specific to the specialization in neurological nursing was applied, which is distributed into 8 main topics and was validated by the National School of Nursing and Obstetrics (ENEO) of the UNAM in 2006. Its application was carried out in 45 minutes.

Ethical consideratios

For the preparation of this case study, the requirements for conducting research on human subjects were met, applying NOM-012-SSA3, which establishes the criteria for the execution of health research projects on human subjects. The person and the family decided to participate voluntarily by signing an informed consent form. In addition, the guidelines of the Declaration of Helsinki and the ethical principles of the Belmont report were followed, considering the ethics committee, since the research chair was informed of this study. Finally, the regulations established by NOM-004-SA03-2021 for the collection of information by means of the clinical record were respected.

Case study design

Meningiomas are the most common primary tumors of the central nervous system (CNS) worldwide. They originate in the arachnoid meningothelial cells and belong to the group of intracranial and extra-axial neoplasms.[1]

Epidemiology

According to the databases and studies consulted, primary CNS tumors have a worldwide incidence of approximately 1.4% of new cancer diagnoses and cause 2.6% of cancer deaths. In a study carried out in Latin America, it was established that meningiomas are the most common CNS neoplasm in adults with an incidence of 36%, followed by glioblastomas with 15%.[1]

Worldwide, incidence rates range from 10.8 to 23.0 per 100,000 inhabitants.[2] In Colombia, the latest statistics report an incidence of 3.4 per 100,000 male inhabitants and 2.5 per 100,000 female inhabitants.[1]

In Mexico, in a study conducted at the National Institute of Neurology and Neurosurgery, it was recorded that the most common cause of hospital admission was CNS tumors, representing 33% of total admissions from 1965 to 2014.[3] Another study conducted at the same institution reported a total prevalence of CNS tumors of 511 patients from 1993 to 2013. With a predominant frequency, the most common cases correspond to those originating in the meninges, totaling 71 cases.[4] Finally, a study conducted in Guanajuato established an incidence of 79 cases of primary CNS tumors from January 2017 to July 2018, of which meningiomas were the most common, registering a frequency of 26 cases.[1]

In view of this emphasis on meningiomas, a worldwide incidence of 37.7% of all primary CNS tumors has been established, of which 53.3% are benign.[5] According to age distribution, meningiomas have a higher incidence in patients older than 60 years; in addition, other factors such as sex seem to affect the degree of malignancy in meningiomas, as men have twice the risk of developing a malignant meningioma. In terms of biological diversity, people of black ethnicity have a higher risk of developing a meningioma compared to those of white ethnicity.[6]

Etiology

Like the vast majority of neoplasms, meningiomas have their etiology in genetic mutations, which are closely linked to

risk factors. These factors are varied and include genetic aspects, ethnicity, diabetes, hypertension, age, sex and radiation exposure. For the purposes of this case study, only the three most studied genetic mutations that have been observed to predispose to the development of meningiomas are listed below:

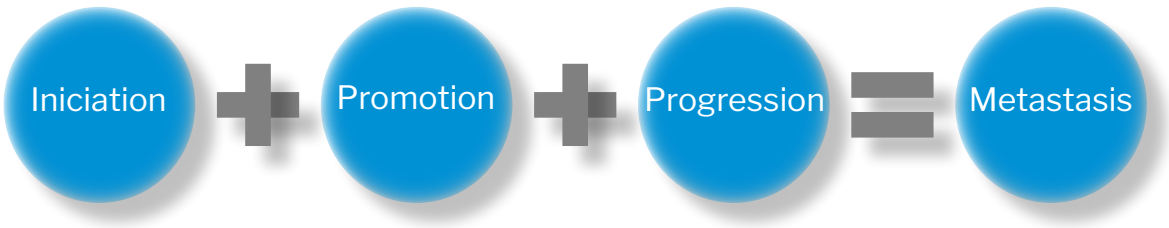
- **Neurofibroma 2 (NF2):** the NF2 tumor suppressor is located on chromosome 22.[7] Loss of this chromosome has been identified in 40-80% of meningiomas, approximately 60% of these tumors have a deficiency of the NF2 gene. The function of this gene is the production of the protein called merlin, which mediates between the protein membrane and the cell cytoskeleton. It plays a crucial role in inhibiting tumor formation. Loss of this protein is characteristic of all NF2-associated meningiomas.[8]
- **TNF receptor activating factor 7 (TRAF7):** mutations in this gene affect the WD40 protein involved in the regulation of p38MAPK, which plays a role in tumor suppression, and MEKK3, which in turn regulates NF-kB function.[7-9]
- **AKTI:** about 8% of meningiomas are linked to this genetic alteration. This gene is part of the PI3K signaling pathway, which controls cell proliferation.[7] AKTI contributes to the production of the kinase that activates PI3K. Disruption of this gene results in hyperactivation of PI3K which promotes cell growth signals.[8]

Pathophysiology

The formation of a neoplasm encompasses a sequence of intricate procedures, in which diverse mechanisms come into play. Factors such as environmental conditions, genetic aspects, dysfunctions in suppressor genes and proto-oncogenes are considered; the combination of these elements favors the process of carcinogenesis, which involves through different stages the transformation of a normal cell into one with cancerous characteristics.[10,11]

It should be understood that, in the pathophysiological process of carcinogenesis of any neoplasm, variation will occur according to the proto-oncogene that is present. In the case of meningiomas, we can list NF2, TRAF7, Soma and AKTI, which prevent or reduce the signaling pathways for apoptosis of suppressor genes, such as P30 or P53. It is worth mentioning that the probability of all these factors being present is low.[11]

Figure 1. Stages of carcinogenesis



Source: Own elaboration.

Classifications

There are several classifications that consider different points to describe meningiomas; however, currently the most widely used classification is that of the World Health Organization (WHO).[11]

Clinical manifestatios

Most CNS tumors, rather than showing specific signs, tend to be asymptomatic and are discovered incidentally. However, if symptoms do occur, they are usually related to the location and area affected, rather than to the neoplasm itself. The following three possible signs can be distinguished:[13]

- Mass effect: Mass effect: there may be neurological effects, such as the involvement of a cranial nerve.
- Seizures: they occur in case of affecting any area of high epileptic incidence.
- Increased intracranial pressure: may lead to headaches of variable intensity.

Table 1. WHO classification of CNS brain tumors.

Classification of CNS brain tumors according to WHO

Grades	*Características*
Grade I	Circumscribed, slow-growing tumors with low potential for conversion to a tumor of greater malignancy.
Grade I	Tumors with a diffuse border, slow growth and some with a tendency to progress to tumors of greater malignancy.
Grade III	Infiltrating tumors with atypical or anaplastic cells and increased number of mitoses.
Grade IV	Rapidly growing tumors with cells of high mitotic rate, may present neoformation vessels and area of necrosis.

Source: Sinning (2017).[12]

Diagnosis

As discussed above, the diagnosis of meningiomas usually happens incidentally, although determining the subtype and grade can be a bit more complicated, because currently 15 variants have been identified according to their histopathology and molecular characteristics.[15] Nevertheless,

Table 2. Clinical manifestations according to localization

Type	*Possible location*	*Clinical picture*
Anterior fossa meningiomas	Orbital roof, orbit and optic nerve, olfactory sulcus, celar diaphragm	They represent 5-10% of intracranial meningiomas. **Initial symptoms:** progressive unilateral or bilateral visual deficit and cognitive impairment of higher functions. **Late symptoms:** headache and hypo-anosmia.

Type	*Possible location*	*Clinical picture*
Middle fossa meningiomas	Anterior clinoid, lesser wing of the sphenoid, cavernous sinus, optic chiasm, free edge of the tentorium in its middle and anterior third.	They represent 3.8% of intracranial meningiomas. **Initial symptoms:** epileptic seizures, headaches, visual deficit, hemifacial hypoesthesia with ophthalmoplegia due to compression of nerves III, IV and/or VI. **Late symptoms:** headaches, epileptic seizures, facial neuralgia, memory disorders.
Posterior fossa meningiomas	Clival, petroclival, petrosal, foramen magnum and tentorium	They represent 10% of intracranial meningiomas. **Initial symptoms:** they are closely related to its location, memory disorders and progressive visual deficit.

Source: Pérez-Castro et al. (2018).[14]

imaging studies are the gold standard for diagnosis. In this case the clinical history is used together with the physical examination, MRI or, if not available, CT with contrast, to determine the histology of the biopsy.[16]

On MRI, the tumors are usually seen hypointense to isointense, in contrast to the cerebral cortex in T1 sequence, and are hyperintense when gadolinium is administered in T2 sequence.[17,18] Another frequent finding in this type of neoplasm is the dural tail or "*mouse tail*" sign, which occurs in 60-70% of meningiomas and basically consists of a linear presence at one or both ends of the meningioma. This characteristic helps to determine the extra-axial location of the tumor and establish that it is a meningioma.[18,19]

Treatment

The large number of variants of meningiomas means that any therapy provided for their control or elimination must be individualized, considering factors such as age, life expectancy, patient preferences, histologic grade and location of the meningioma, and that careful planning must be carried out prior to any health intervention. It is currently considered that the first line should be surgical, followed by fractionated radiotherapy or radiosurgery.[7]

Similarly, in the European Association of Neuro-Oncology (EANO) guide for the treatment and diagnosis of meningioma, it is mentioned that if the patient is asymptomatic, with small or calcified meningioma, it is unlikely that treatment will be required.[20] On the other hand, patients presenting neuronal deficits, with a high histopathological grade according to the classification or a partial resection with a high level of recurrence, will probably need adjuvant treatment with radiotherapy or radiosurgery.[7]

Surgical treatment

Total surgical resection is the gold standard treatment to solve the problems caused by meningiomas, because it eliminates the compression it causes in the affected structure, quickly relieving the symptoms and improving the patient's quality of life; however, there is also a risk of some neurological deficit, which can vary between 2% and 30%, depending on the location and histological grade.[21]

Another study performed at the University

Hospital of Salamanca established that factors such as the number of arteries and nerves involved in the tumor will directly affect the possibility of performing a total or partial resection and, with this, of assessing the degree of functionality after the surgical event.[22] In addition, the surgeon's experience plays a vital role, since the new trends in performing safe surgeries through the use of less invasive techniques seem to improve the prognosis of the surgeries.[7,23]

Due to the risk of recurrence despite successful total or partial resection, in 1957 Simpson established a classification to determine the grade and percentage of recurrence.[17,24]

Another treatment that can be used as adjuvant therapy is radiotherapy in partial resections of grade III meningiomas, which will depend on the morphologic and histopathologic characteristics.[25] Currently, novel treatments have been developed such as immunotherapy or the cybernetic knife -which has shown promising results, but its high cost has limited its use in the United States of America-,[25] as they seem to be the treatments with the highest rate of effectiveness in grade II and III meningiomas.[26,27]

Table 3. Simpson›s classification

Grade	*Surgical resection*	*Relapse (%)*
Grade I	Complete resection, including dural insertion and abnormal bone.	9%
Grade II	Complete resection, with dural insertion coagulation.	19%
Grade III	Complete resection, without resection or coagulation of the dural insertion.	29%
Grade IV	Subtotal resection.	44%
Grade V	Tumor decompression (biopsy) only.	-

Source: Simpson (1957).[24]

Presentation of the case

In the hospitalization service on March 25, 2023, the patient is found post-operated of total resection of meningioma and dural plasty, and has the following signs: isochoric pupils with photomotor response and no involvement in visual fields (cranial nerves II, III, IV and VI with preserved function), bilateral hyposmia (cranial nerve I with possible involvement), dysarthria, hypoparesis of the tongue and loss of swallowing ability (cranial nerves IX and XII with possible involvement), hypoacusis in right ear (cranial nerve XIII with possible involvement), other nerves unaffected, ventricular drainage with 54ml/hr output, severe headaches with VAS 7 out of 10 during the course of the day, increasing with mobilization.

He maintains tracheostomy and oxygen support through Puritan at 35% FiO_2, lung fields with moist rales in apical areas, manifests pain in the left shoulder joint with VAS 8 of 10, and has a functional trilumen central venous catheter covered with transparent dressing.

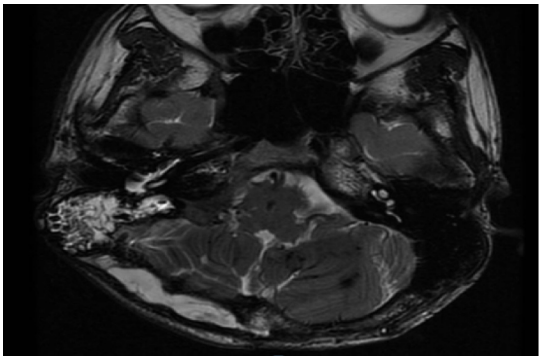
Functional gastrostomy with artesian type feeding and covered with dressing and gauze. The relative reported that the patient presented constipation with 2 days of evolution

and peristaltic sounds were heard at 2-3 per minute, spontaneous urination was observed. As for motor function, there is evidence of strength of 3/5 in the left hemisphere and 4/5 in the right hemisphere, evaluated by Daniels scale. There is generalized hypotrophy, normal tone. Osteotendinous reflexes are preserved, with no involvement in sensory function. Cerebellar function diadochokinesia in right limb, gait not assessable due to absolute rest of the person.

Nursing care plan

With the assessment presented, the altered universal self-care requirements 5, 3, 4 and 7 were prioritized in order to carry out the nursing care plans. Descriptive tables of each requirement and the care plans are presented below.

Figure 2. MRI of the postoperative patient.



Source: clinical record. Date of capture: March 04, 2023.

Discharge plan

Discharge plans should be developed in collaboration with all health professionals who may be involved in the person's care, such as nursing, medical personnel, social work, rehabilitation, nutrition, among others.[28] These plans should take into account the possible limitations that the person and his

Table 4. Diagnosis 1

Universal self-care requirement: 5.- Maintaining a balance between activity and rest.	
Self-care deficits: impaired physical mobility r / t affectation in pyramidal pathway m / b strength 3 / 5 left hemisphere and 4 / 5 in right hemisphere, according to Daniels strength scale, quadriparesis.	
Nursing system: Fully compensatory.	**Objective:** Improved mobility.
Nursing intervention: Physical neurorehabilitation.	**Actions:** • Inform the person about the benefits of early rehabilitation. • Assess the person's ability to perform physical activities and range of motion. • Plan a passive physical exercise routine (schedule, time and amount of exercise). • Implement an exercise routine in conjunction with the family member of the sick person.
Evaluation: rehabilitation products (textured balls, kinesthetic plasticine, hand and finger exerciser) were provided for the implementation of fine and gross motor exercises, a daily exercise plan of 15-30 minutes was designed according to patient tolerance and a schedule was established (10:00-11:00 am) to perform them. No hemodynamic alterations or signs of dyspnea were observed during the exercises.	

Table 5. Diagnosis 2

Universal self-care requirement: 3.- Maintenance of sufficient food intake.	
Self-care deficits: feeding r/t involvement of medulla oblongata (cranial nerves IX and XII) m/b impaired swallowing, tongue hypoparesis.	
Nursing system: Fully compensatory.	**Objective:** Improvement of self-care in feeding.
Nursing intervention: Self-care assistance: gastrostomy feeding	**Actions:** • Evaluate the characteristics of the abdomen prior to the initiation of feeding. • Verify indication of diet (name, quantity, speed) prior to administration • Position the patient at 45° degrees prior to the start of feeding. • Install feeding set on infusion pump and administer according to nutrition instructions.
Evaluation: together with the nutrition staff, the administration of gastrostomy feeding (diet of 2400 Kcal, 1236 total volume at 95ml/hr by gastrostomy) was performed, assessing data of abdominal distension or gastroesophageal reflux; no changes in the characteristics of the abdomen were observed before, during or after the administration of the feeding.	

Table 6. Diagnosis 3

Universal self-care requirement: 4.- Provision of care associated with the elimination processes.	
Self-care deficits: decreased bowel motility r/t prolonged prostration m/b constipation (2 days evolution), decreased peristaltic sounds (1-2 per minute).	
Nursing system: Fully compensatory..	**Objective:** Promote intestinal motility.
Nursing intervention: Constipation management.	**Actions:** • Evaluate abdominal distention, abdominal pain and peristaltic sounds in turn. • Administer laxative drugs (suggest the use of the drug during the night). • Apply evacuating enemas (place patient in Sims position and instruct to hold the enema as long as possible). • Assess the characteristics of the stool and the amount of stool.
Evaluation: abdominal assessment of the patient was performed, no signs of abdominal distension or pain were observed, laxative drug was used (Lactulose 15ml VO every 12 hours) without apparent improvement, it was decided that if during the course of the day there was no evacuation, the application of soapy enemas would begin on March 26, 2023.	

Table 7. Diagnosis 4

Universal self-care requirement: 7.- Prevention of hazards to human life, functioning and welfare.	
Chronic pain r/t brain parenchymal inflammation m/b headaches during the day with variable intensity, 5-10/10 according to VAS.	
Nursing system: Fully compensatory.	**Objective:** Pain control.
Nursing intervention: Chronic pain management.	**Actions:** • Evaluate pain (characteristics, timing, triggers, schedule) • Assess the level of pain using standardized pain scales. • Implement breathing techniques and provide comfort to the patient during episodes of pain. • Use pharmacological measures for pain control according to the WHO analgesia scale. • In case of using buprenorphine patches avoid cutting the patch and change it every 72 hours.
Evaluation: pharmacological and non-pharmacological measures were implemented for pain control, used at the onset of discomfort to avoid pain peaks. Among the pharmacological measures the following medications were applied: Paracetamol 1 gr IV every 8 hours, Ketoprofen 100mg VO every 12 hours, and buprenorphine patch of 10mcg with replacement every 72 hours. Pain was controlled with VAS from 2 to 4 without eliminating it, and it is considered to increase analgesic measures with the treating physician.	

or her family may face in order to carry them out adequately.

For the following discharge plan, the CUIDARME mnemonic was used, which facilitates understanding and comprehension of the care to be provided at home.[29] We worked together with the consulting service to train family members on home care.

Relevance

The development of case studies, although challenging, remains a solid tool for expanding the body of knowledge in the profession. It also helps to establish the basis for the implementation of nursing interventions in pathologies or cases of

Cuadro 8. Plan de alta

CUIDARME

Effective communication	**Recommendations for communication** • Maintain a close relationship with health personnel and keep scheduled appointments in a strict manner. • Keep a diary of symptomatology or changes in the person to be communicated to the health personnel during scheduled consultations
Emergencies and warning signs	**Warning signs** • Gastrostomy tube occlusion, accidental removal of gastrostomy tube • Respiratory distress • Constipation for more than 3 days • Headache that does not yield to paracetamol • Fever above 38°C • Pain, suppuration, redness in surgical wounds or stomas. • Vomiting episodes (at least 3)
Information	**Health education provided** • Teaching about the five-step hand hygiene technique and the importance of performing it for the care of the person. • Training on gastrostomy tube management, feeding, medication, care and cure • Training on tracheostomy and tracheostomy cannula management, airway suctioning, healing and cleaning of the endocannula • Teaching bed bathing, patient mobilization, skin care and prevention of pressure sores. • Physical, sensory and cognitive rehabilitation
Diet	**Food recommendations** • Disinfect all food in case of fruits and vegetables. • Administer tube feeding at room temperature. • Avoid very thick or liquid foods due to risk of tube obstruction or diarrhea.
Environment	**Recommendations at home** • Keep the area where the person is located clear to avoid risk of falling. • Keep the area where the person is illuminated. • Perform household hygiene at least twice a week.
Recreation and use of free time	**Recreational recommendations** • Evaluate the difficulties the sick person may have in performing recreational activities. • Seek activities that are adapted to the health conditions of the person. • Encourage the sick person to engage in recreational activities.

Medications and treatments	**Medication counseling** • Maintain a strict regimen when administering medications • Preparation of medicines for administration by gastrostomy tube • Report adverse reactions to some medications. • Suggestion of appropriate schedules according to the indicated medication.
Spirituality	**Recommendations:** • Maintain constant communication with the family and seek support groups. • Avoid overburdening a caregiver • Keep the ill person involved in family and social events as much as possible.

low incidence. It is vitally important that nursing professionals continue to develop this type of work, as it represents one of the most effective ways of establishing standards or recommendations for the care of sick people.

Conclusions

Meningiomas continue to be one of the main causes of hospital admissions in neurological areas today. Although they are mostly benign in nature, they tend to cause neurological damage due to their location in the brain. Likewise, meningiomas with a high probability of recurrence represent a challenge for health professionals, since treatment becomes complex and the possibilities of presenting neurological sequelae increase exponentially.

There is currently a boom in studies related to neuro-oncological aspects in surgical, medical and pharmacological sections, among other areas; however, from the perspective of self-care and the nursing care process, no articles were found focused on the care of post-operative patients with neurological sequelae caused by meningioma resection.

The nursing approach to these types of neoplasms should be multidisciplinary and holistic. Given that they present a wide range of affectations from the physiological to the emotional side of the person, it is essential to implement care plans that cover the patient's biological, social and psychological aspects. In addition, involving the family as a support network will be crucial for the care and treatment provided to the affected person.

With respect to the case of the patient studied, the objectives were met, which had an impact on the improvement of the quality of life, interpersonal relationships and coping with the state of health. Emphasis is placed on the need for nursing personnel specialized in the neurological area to implement individualized and specialized care plans for this type of conditions, which involve all the biopsychosocial spheres of people.

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