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SIRINGOMIELIA, REPORT OF A CLINICAL CASE AND BIBLIOGRAPHIC REVIEW

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ABSTRACT

INTRODUCTION: Syringomyelia is a pathological involvement of the spinal cord, which consists of a central cavitation, which mainly affects the cervical area. In 90% of cases, it can be closely related to Chiari disease , however, there are other alterations such as intra or extramedullary tumor , trauma, hydrocephalus, among others that can also cause syringomyelia. The diagnosis is completed with imaging studies (MRI). The treatment is usually surgical in most cases, as long as the patient is a candidate for it. However, there are other alternatives with promising results.**CLINICAL CASE:** A 47-year-old female patient who came to the outpatient clinic complaining of pain in the upper extremities, mainly on the right, radiating to the dorsal region, in addition to presenting other signs and symptoms such as tachycardia, chest pain of medium intensity, headache, nausea and dizziness. As a pathological personal history, the patient refers to having suffered convulsive crises during her childhood, in addition to having been hit by a truck with an evolution time of 15 years.

CONCLUSIONS : With the studies obtained and the evaluation of the patient, the diagnosis of syringomyelia associated with Chiari is reached . The patient is followed up and scheduled for neurosurgical treatment due to the presence of symptoms.

KEY WORDS : syringomyelia; Adults; Spinal cord compression; magnetic resonance; Chiari ; trauma.

INTRODUCTION:

Syringomyelia is a generic term referring to a disorder in which a cyst or tubular cavity forms within the spinal cord. This cyst is known as a syrinx or " syrinx ". It must be differentiated from the term hydromyelia , which refers to a dilation of the central medullary canal. [1]

It is a unique pathological entity of the spinal cord that consists of a generally central cavitation that preferentially affects the cervical cord. This pathology is progressive and degenerative, presenting fluctuating pictures that range from severe worsening in 5 to 10 years to a slow progression of 30 to 40 years or more. [3]

In 90% of cases, syringomyelia is associated with Chiari type 1 malformation, while the remaining 10% include syringomyelia without association with Chiari1 (idiopathic), and may be secondary to intramedullary tumor, spinal trauma, compression by extramedullary tumor , spinal cord infarction and hydrocephalus. [7]

Chiari disease is characterized as an anatomic abnormality that causes the lower part of the cerebellum (cerebellar tonsils) to protrude from its normal position at the back of the head into the cervical (or neck) region of the spinal canal. In the case of complications due to trauma or tumor, the syrinx or cyst forms in a segment of the spinal cord, it begins to expand, subsequently causing symptoms, with pain being the main one. If the involvement involves the brain stem (syringobulia), alterations in vital functions such as breathing and heart rate may occur. [2, 3, 5]

The clinical picture usually begins in the third decade of life. At first, it can manifest inconclusively with pain in the posterior cervical area, which can be triggered by physical exertion or Valsalva maneuvers and later present hypoesthesia mainly in the upper limbs, as well as motor deficit in them, with minimal involvement in the lower limbs. . [5]

The diagnosis is based on a good history, as well as a complete physical examination, emphasizing neurological functions. Subsequently, imaging studies can be requested, with magnetic resonance imaging being the study of choice in these cases , since it allows a detailed view of the structures to be studied, as well as the alterations that may occur, mainly in the cerebrospinal fluid and spinal cord. [7]

Treatment in patients with this pathology is usually very variable; Surgery is usually recommended, with the goal of providing more space for the cerebellum (Chiari malformation) at the base of the skull and upper neck, without entering the brain or spinal cord. This allows the primary cavity to flatten or disappear and thus the symptoms improve. [2, 4]

Pharmacological treatment has no curative value, radiation is used infrequently and produces little benefit. In the absence of symptoms, no treatment is usually given. [6]

There must be a protocol with which patients who are candidates for surgery can be chosen, they must have significant symptoms such as severe chronic pain,

limitation in daily activities, respiratory problems, persistent seizures, adequate surgical risk by medicine internal, comorbidities denied or under treatment. All this in order to always assess the risk-benefit of the patient. [6]

Clinical case:

Female patient, with a name referred to by the following acronym MCGD, 47 years old, who was admitted to the emergency room due to a seizure disorder, presented at 03:00 a.m. at her home, lasting approximately three minutes with loss of consciousness, referred by his daughter who witnessed the act; He has a slight frontal contusion. The patient reports having a history of seizures in childhood, without presenting since she was 19 years old. Already in the emergency room, on physical examination he is conscious, oriented, without neurological deficit, stable at that time; vital signs within normal parameters, isoreflective pupils , cylindrical neck without palpable adenomegalies, cardiac area without added sounds, well ventilated lung fields, globular abdomen at the expense of adipose tissue, depressible , without pain on superficial or deep palpation, decreased upper extremities of strength, increased osteotendinous reflexes , capillary refill of 2 seconds, rest of the physical examination without alterations. A diagnosis of "seizures, not elsewhere classified" is given. As well as his respective management with hydration, safety position and antiepileptic, he is kept under observation, and later he is discharged from the emergency department with an appointment in the outpatient neurology service.

Subsequently, he went to his consultation at the neurology service of the Military Hospital of Medical Specialties of Guadalajara, referring to pain and alteration of strength in both upper limbs. The patient reports that the pain is more intense in the upper right extremity and in the cervical-thoracic region. In addition to presenting tachycardia, chest pain of medium intensity, headache, nausea and dizziness, with poor response to analgesic treatment.

On questioning, the patient refers to a history of having been run over by a truck with a 15-year history, currently with painful sequelae in the right upper limb and lateral region of the ipsilateral neck . An imaging study (magnetic resonance imaging) is performed, where data of syringomyelia and cervical osteoarthritis are observed.

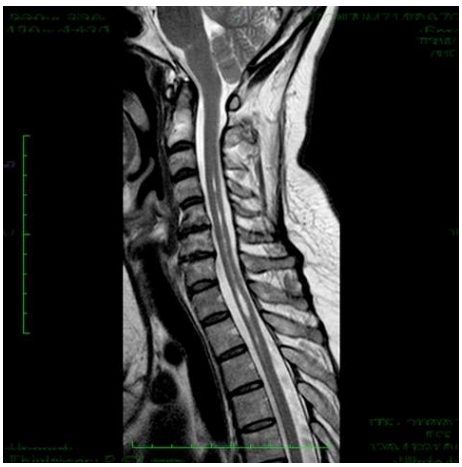

Figure 1: MRI, sagittal section, with data suggestive of osteodegenerative disc disease, with loss of height of the vertebral bodies of C5, C6 and C7; as well as dehydration of the intervertebral discs C5-C6, C6-C7 and C7-T1. In addition to hyperintense intramedullary cystic cavity in T2-weighted magnetic resonance, from intramedullary C4-T2 level. Presenting descent of the tonsils Cerebellar arteries that obstruct the foramen magi more than 5mm. (Courtesy of the Regional Military Hospital of Medical Specialties of Guadalajara)

The patient was asked to consult with the neurosurgery service to see the possibility of undergoing a surgical procedure due to chronic neck pain. He continues to attend a consultation by the neurology service for his management and evolution, as well as the rehabilitation service. He is currently awaiting surgical time.

Discussion:

In this case, the first possibility is suspected that syringomyelia may be secondary to Chiari disease or Chiari disease in relation to it. The plan will be to propose neurosurgical management , prior to which an electromyography of 4 extremities should be performed to corroborate the etiology of the neurological damage. Electromyography is a study that will measure the nerve transmission conduction velocity to infer the etiological origin of the damage if it exists in this patient. [8]

This relationship with Chiari disease is coupled with the descent of the cerebellar tonsils , which allows us to suspect secondary damage to the aforementioned disease of the patient. In cabinet studies performed for the seizure, an intramedullary hyperintense image from C4 to T3 was evidenced as an incidental finding, suggestive of syringomyelia. It should be noted that this injury is already producing significant neurological damage in our patient, however, the diagnosis was obtained through an incidental finding.

Conclusions:

It is recommended to expand the study and knowledge of this common pathology, but underdiagnosed , in order to provide more and better treatments to patients with this disease.

With this, prevent the progression of the disease and promote a prompt recovery that generates an increase in the quality of life in this type of patients, since it can become incapacitating, thereby increasing alterations in their biopsychosocial environment.

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