International Journal of Allied Medical Sciences and Clinical Research (IJAMSCR)

ISSN:2347-6567

IJAMSCR |Volume 5 | Issue 1 | Jan - Mar - 2017
www.ijamscr.com

Case Report *Medical research*

A case report on compressive myelopathy

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ABSTRACT

Compressive cervical myelopathy is referred as a neck condition that arises when the spinal cord becomes squeezed due to the wear-and-tear changes that occur in the spine with advancing age. Etiological factors for this include Trauma, congenital stenosis, tumor, Viral processes, degenerative processes like intervertebral disc herniation and Spondylosis. Cervical cord compressive myelopathy is the most common cause of spinal cord dysfunction in individuals >70yrs age and prevalence is seen more in men than in women. Symptoms include pain, numbness and weakness in the neck or arms with decrease in fine motor skills. Physical therapy evaluation indicates unsteady gait, hypertonia, multi segmental weakness or sensation loss and positive babinski sign. MRI is the gold standard for diagnosis of compressive myelopathy. Physical therapy is found to be useful in preventing progression in 70% of patients with mild symptoms. Patients with poor response to conservative therapy, severe gait instability and weakness are treated with surgery. We report a case of 52 year old Female who suffered loss of grip in her left hand since her delivery. Mylogram was conducted and syringomyelia was diagnosed. Years later she developed compressive myelopathy.

Keywords: Compressive myelopathy, Immunonutritive therapy

INTRODUCTION

Spinal cord compression is a Degenerative spine disease and one of the most common causes of myelopathy [1]. Intraspinal tumors that originate in the substance of the spinal cord called as intramedullary tumors compress the spine from the outside (extramedullary tumors) [2]. This type of case history may provide clues to the pathologic nature of the tumor and such compression from mass results in the clinical syndrome of myelopathy [3].

The symptomatology of spinal cord compression include Autonomic, sensory (pain, numbness and paresthesia) and motor disturbances, the extend of which is related to: (a) the level of compression, (b) the direction from where the compression begins;(c)the speed by which the compression is accomplished [4]. Adequate neurological examination, Patient History and the study of the cerebrospinal fluid (CSF) guide the diagnosis of spinal cord injuries. However, imaging is of great importance in diagnosis and classifying the etiology [5].

Compressive diseases of the spinal cord are classified as acute and chronic and include degenerative changes, trauma, tumor infiltration, vascular malformations, infections, and syringomyelia [6]. Major cause of myelopathy in older individuals is Compressive. It has a chronic course with High intensity signals in T2 images as seen in myelomalacia, gliosis, tethering damage, inflammatory edema, demyelination and vacuolar changes. Gadolinium enhancement is limited to the area of maximum [7].

CASE PRESENTATION

A 59 year old female patient came to OP department with chief complaints of right sided neck stiffness and swelling and lossofgrip from left hand since 7 years. She had a history of syrengomyelia and was appropriately treated. Her past medication history indicate she was taking ferric ammonium citrate 160 mg, folic acid 0.5 mg as syrup heam-up and she also went for physiotherapy exercises. Physical therapy over the course of 4 weeks with manual therapy to the lumbar spine and knees was given. A therapeutic exercise program, which targeted the trunk and lower extremity musculature, was also used. Her condition improved and that time she could lift her left hand half way only. As the time progressed, her left hand mortor system deteriorated. MRI was suggested wchich indicated that spinal cavity or vertebral cavity was intact and did not expand. But there was no improvement in her complaints.

She visited Dr.Appa Rao's clinic with complain of her inability to lift right hand fully and certain type of neck stiffnes which is limiting her daily activities. She also had pain in both the knees and difficulty in walking. Electro encephalograph was conducted which indicated cortical dysrhythmia. USG of neck revealed bilateral intraparotid and level III articular nodes. First MRI of neck showed thinning of cervical cord from C2extending inferiorly and mild cerebral atrophy. Days later, MRI revealed diffuse atrophy of cervico-dorsal cord with decompressed syrinx. She started with Dr.AppaRao's Immunotherapy. There is a lot of improvement in her lifestyle compared to earlier. For the past year she is cooking with her right hand and with a little help from left hand.She is able to climb stairs without anybody's support and could do her household chores.

Thus this methodology may be a considerable alternate to the neurodegenerative diseases.

DISCUSSION

It is important not to mistake myelopathy for myelitis as both terms refer to spinal cord compromise as a cause of pathological event. Myelopathy has multiple etiologies, while myelitis is refers to inflammatory or infectious processes. Certain degree of sensory dysfunction, or urinary retention, point to a spinal cord injury. Myelopathies have a variable course and usually manifest as a single event or rarely as a multiphasic or recurrent disease. The latter is usually secondary to demyelinating diseases, or systemic diseases.

The central nervous system damage can be monofocal as in transverse myelitis and optic neuritis, or multifocal as neuromyelitis optica (optic nerve and spinal cord) and multiple sclerosis. Syringomyelia, a rare neurologic disorder is characterized by the slow development of fluid-filled areas extending along the length of spinal cord, and causes symptoms such as pain, weakness and stiffness of the back, shoulders and limbs. The prevalence rate is 3.3 to 8.5 cases for every 100,000 people and it varies based on the ethnic background. It is more common among African-Americans and is related to congenital or acquired malformations.. Most non-traumatic forms of syringomyelia are due to Chiari malformation, a congenital abnormality in which cerebellar amygdalas herniate through the foramen magnum in the spinal canal, with altered CSF flow. This causes symptoms of headache, double vision, dizziness and muscle weakness of the upper limbs additionally, trauma, tuberculosis-associated chronic arachnoiditis, and intraspinal tumors are considered as acquired causes of syringomyelia.

Our patient had Syringomyelia which has lead to compressive Myelopathy. Before being diagnosed with compressive myelopathy, the patient was also referred to a physician for the interventional treatment of the spine. It has been reported that diagnosing cervical cord compressive myelopathy is especially difficult in patients whose lower extremity symptoms are thought to be related to the lumbar spine.

This case study is to be interpreted with caution to provide illustrations for the need of necessary diagnostic procedures to occur in a timely fashion.

There are only a few reports of compressive myelopathy due to syringomyelia and lower extremity pain being associated with compressive Myelopathy. A series of patients might serve as better evidence to support a causal relationship between cord compressive myelopathy due to syringomyelia and lower extremity pain.

CONCLUSION

It is true that Physical therapy serves as a point of access to the medical system, but it is also necessary to recognize the tools available and utilize them with much knowledge. In our case Dr.AppaRao's Immunotherapy has shown considerable benefits in improving patient condition and brought good clinical benefits. This case demonstrates the challenge in making treatment without appropriate decision-guiding tests. It clearly shows the importance of using treatment plan in conjunction with highly sensitive diagnostic studies in a timely fashion to effectively treat degenerative diseases.

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How to cite this article: Dr. Peddapalli Appa Rao Dr. K V Subrahmanyam Dr. Sandhya Rani P Dr. Smitha Madhuri, Dr. Shazia Yousof. A case report on compressive myelopathy. Int J of Allied Med Sci and Clin Res 2017; 5(1): 277-279.
Source of Support: Nil. **Conflict of Interest:** None declared.