

Case Report On Hypotension with Cervical Myelopathy

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Abstract:

Introduction: Cervical myelopathy is frequently accompanied with spinal degeneration. Many cases of cervical myelopathy show signs of autonomic nervous system abnormalities. During anaesthesia, autonomic dysfunction can cause haemodynamic instability and hypotension. **Main symptoms and/or important clinical findings:** A 50 year old male was admitted in AVBRH in medicine ward Sawangi Meghe Wardha with chief complaint of Arms, fingers, and hands become numb and tingly. Muscle weakness makes grabbing and holding objects difficult. Pain and stiffness in the neck since 10 days. **The main diagnoses, therapeutic interventions, and outcomes:** After physical examination and investigation, this case was diagnosed having cervical myelopathy with hypotension with chief complaint of Arms, fingers, and hands become numb and tingly. Muscle weakness makes grabbing and holding objects difficult. Pain and stiffness in the neck since 10 days. The patient was undergoing treatment at private hospital but his condition did not improve so he was brought to Sawangi Meghe. He was provided the patient antimicrobial agents in the treatment of HTN cervical myelopathy. Case was stable but blood pressure revealed sign of Hypotension. **Nursing perspective:** Fluid replacement i.e. DNS and RL, monitoring of vital signs per hourly. **Conclusion:** The most common source of spinal cord impairment in adults is degenerative cervical myelopathy. This review aids in the identification of the condition in primary care, increasing the odds of early detection and preventing future neurologic impairment in patients.

Keywords: Cervical Myelopathy, Hypotension

Introduction:

Congenital stenosis, degenerative alterations, rheumatoid arthritis, and trauma are just a few of the conditions that can cause myelopathy, or spinal cord dysfunction. Cervical myelopathy (CSM) is the name given to a severe disorder in which myelopathy is frequently coupled with and caused by typical osteoarthritic changes in the axial spine.¹ CSM is one of several degenerative illnesses of the cervical spine, including neck pain syndromes, dysplasia, and myelopathy. These conditions can manifest themselves in a variety of ways, some of which overlap. In people over the age of 55, cervical myelopathy is the most major condition of spinal cord dysfunction.² most people will have degenerative changes seen on radiographs by the age of 40.³ In reality, plain films indicate degenerative changes in 95% of asymptomatic males and 70% of asymptomatic women by the age of 60-65.⁴ Degenerative alterations in the cervical spine, particularly in the lower segments, C4-7, are common, but they can occur at any level, especially in the elderly.⁵

Cervical myelopathy has a natural history that includes both static and dynamic variables that cause a chain reaction that results in cord compression and ischemia dysfunction of the spinal cord. Mild Cervical Myelopathy (CSM) can be treated conservatively, but it's crucial to keep a close eye on your

clinical and radiological results. For more symptomatic CSM, surgical therapy remains the gold standard of care; nevertheless, each patient's indication must be carefully considered.

Patient information:

Patient specific information: A 50 year old male was admitted in AVBRH in medicine ward Sawangi Meghe Wardha with chief complaint of Arms, fingers, and hands become numb and tingly. Muscle weakness makes grabbing and holding objects difficult. Pain and stiffness in the neck since 10 days. After physical examination and investigation, doctor diagnosed this case as cervical myelopathy with hypotension.

Primary concerns and symptoms of the patient: Present case visited AVBR hospital at medicine OPD on date 10/07/2021 with chief complaint of Numbness and tingling in their arms, fingers, or hands, Muscle weakness that causes difficulty grasping and holding objects. Pain and stiffness in the neck since 10 days and hypotension at the time of reporting.

Medical, family, and psycho-social history: Present case had no history of any medical problems. He belonged to joined family and her husband had medical history of Hypertension. He was mentally stable, conscious and oriented to date, time and place. He had maintained good relationship with doctors and nurses as well as other patients also.

Relevant past intervention with outcomes: Present case had bad medical history. The patient was admitted in private hospital with chief complaint of Arms, fingers, and hands become numb and tingly. Muscle weakness makes grabbing and holding objects difficult. Pain and stiffness in the neck since 10 days. That time patient general condition was poor so patient was referred to AVBRH Sawangi Wardha for further management.

Clinical findings: The patient was conscious and well oriented to date, time and place. His body built was moderate and she had maintained good personal hygiene. Her haemoglobin was low i.e. 9gm, pulse rate was slightly increased. Blood pressure was 100/70 mm hg.

Timeline: Present case had bad medical history. The patient was admitted in private hospital with chief complaint of Arms, fingers, and hands become numb and tingly. Muscle weakness makes grabbing and holding objects difficult. Pain and stiffness in the neck since 10 days. That time patient general condition was poor so patient was referred to AVBRH Sawangi Wardha for further management.

Diagnostic assessment: On the basis of patient history, physical examination, blood investigation and other investigations the patient is having hypotension (HTN) cervical myelopathy. the blood test sample report as Hb % 9.7gm and total RBC is 4.41 and WBC count 20200 and total platelet count 2.74. x ray was done.

Blood sugar was normal but Hemoglobin level was decrease. Urea serum was slightly decreased. Total WBC count was increased.

Blood pressure was 110/70 mm Hg.

No challenges experienced during diagnostic evaluation.

Prognosis: Blood investigations show that the Hemoglobin level slightly low, WBC level is increased.

Therapeutic intervention:

Present case took the medical management with the patient antimicrobial agents in the treatment of Hypotension cervical myelopathy inj ceftriaxone, tab pantoprazole twice a day, Tab. Emset twice a day, Inj.cetax1 gm BD , inj. Metro 100 ml IV TDS, tab. Folic acid twice a day.

No changes were made in therapeutic intervention.

Nursing perspectives: IV fluid was provided to maintain the fluid and electrolyte. Monitored fatal heart rate and vital signs per hourly.

Follow- up and outcome:

Clinical and patient assessed outcome:- In spite of the all care of patient progress in active health of the patient care of the present regular medication, healthy diet the will be recover and health status are improve more than before condition.

Important follow up diagnostic and other test result - Change occur in all sign and symptoms such as muscle pain, fever, weakness, numbness.

Discussion:

Present case was admitted in hospital with chief complaint of Arms, fingers, and hands become numb and tingly. Muscle weakness makes grabbing and holding objects difficult. Pain and stiffness in the neck since 10 days. He took treatment of antimicrobial drug. Patient condition was stable, Haemoglobin was slightly normal i.e. 11gm %. And blood pressure was normal that is 120/80 mm Hg.

According to a review research, DCM research is becoming more worldwide each year, in terms of both the number of publications published and the number of patients investigated. This applies to both industrialized and developing economies with comparable growth rates. The majority of study focuses on patients who are undergoing surgery, specifically the surgery itself. Prognostication, development of functional outcomes, and molecular studies are all expanding areas of study interest, despite their small numbers.

The sole evidence-based treatment for DCM is decompression surgery, which is mostly treated by surgeons. 5 It has been found to slow the progression of disease and provide considerable, albeit imperfect, recovery. As a result, we found that 79 percent of studies focused on patients undergoing surgery, with 45 percent of papers evaluating the benefit of a surgical method. This is consistent with a recent assessment of the top 100 most-cited spinal surgery papers, which found three DCM studies, all of which dealt with surgical procedure. For a variety of reasons, this specific concentration is likely to be an example of research inefficiency. To begin with, not all patients require surgery. The majority of DCM patients are currently undiagnosed, and not all patients are treated with operation.⁶ Second, essential characteristics of DCM, such as the disease's natural history and specific aetiology, remain unknown. Third, no additional benefit has been discovered for one surgical procedure over another based on the synthesised data of surgical studies.⁷ Fourth, Despite a clear need, little study has been done to uncover ways to promote rehabilitation. Finally, the majority of DCM research is based on low-quality evidence.⁸

In all eight DCM research topics, we discovered significant increases in absolute production. While surgery remained the most common procedure, prognostication, functional outcome, and molecular research investigations grew in popularity. Electrophysiology research, on the other hand, have decreased in number.

DCM is a global problem that is becoming more prevalent as the world's population ages, and our discovery of active and growing participating in research in developing countries is encouraging, and aligns with the World Health Organization's goal that all nations should be producers and users of research.⁹⁻¹⁰ Related studies on management¹¹⁻¹³ and evidences from Global burden study¹⁴⁻¹⁶ were reviewed.

Conclusion:

DCM research is undertaken all around the world, and it is growing every year. Until now, surgery has been a significant emphasis of research, which has resulted in many important information gaps being missed. A cooperation to determine priorities would increase efficiency and allow the worldwide desire for research to be effectively harnessed in order to accomplish much-needed progress.

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