Paraplegia Following Massage Therapy Intervention in a Patient With Undiagnosed Multiple Myeloma

Paraplegia Secundária a Tratamento com Quiropraxia em Paciente com Mieloma Múltiplo Não Diagnóstico

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INTRODUCTION

Treatment represents ways or tools which aims the cure or relief of symptoms or diseases. The treatment may be only symptomatic when the cause of the disease is unknown. Alternative treatment is usually prescribed by non official people or institutions (without medical authority) to alleviate symptoms like pain.

Indeed, the responsibility of the medical treatment must be balanced between risk and benefits. A previous and correct diagnosis is fundamental to predict the natural history of the disease, symptoms and to estimate the morbid effects of the disease.

Due to increased available alternative therapies to the treatment of back pain and sometimes difficult access to specialized medical evaluations, there is a widespread use of alternative therapies for the treatment of back pain. Based on the principles above, treatments involving fragile spine without correct diagnosis can generate unpredictable consequences.
We describe a case with a catastrophic consequence of massage therapy in a patient with initial symptoms of back pain resulting in definitive paraplegia and discuss the needs for medical diagnosis for any treatment.

**CASE DESCRIPTION**

A 66-year-old male patient with a previous history of gait disturbance for twenty days and dorsalgia before attending at the Hospital, with no relief by analgesic treatment. He searched an massage therapist. In the course of the massage he referred worsening of pain in the region of upper thoracic spine. Then, the therapist performed a coup with a specific hammer in the region referred by the patient. After that, gradually the pain was relieved and the patient became paraparetic.

The paraparesis became even worse and four days after performing magnetic resonance and becoming paraplegic he attended at our Hospital Emergency. In admission, he was paraplegic since four days ago, ASIA A, sensory level at T6, referring urinary and fecal retention.

The Magnetic Resonance (Figure 1) of whole spine performed four days ago revealed an expansive mass in T2 level, compromising body, pedicles, facets, lamina and spinous process, and compressing spinal cord. Additional images were seen in the bodies of T5, T6 and T9, suggesting neoplastic aggression.

As the evolution of paraplegia lasted more than 48 hours, no operative procedure was adopted. We started clinical and oncological approach to determine the origin of neoplasm. In general admission laboratorial findings, we observed a hemoglobin of 9,9g/dL, creatinin of 3,7mg/dL and ionized calcium of 1,79mmol/L, raising the hypothesis of multiple myeloma (MM). Further investigations revealed lytic lesions in skull and apendicular bone segments. The beta 2 microglobulin was then 13000ng/mL and immunoglobulin G was 8200mg/dL, highly suggesting the proposed diagnosis. The Hematology service was assessed to start the correct treatment.

**DISCUSSION**

MM is a debilitating malignancy characterized by a proliferation of malignant plasma cells and a subsequent overabundance of monoclonal paraprotein (M protein)\(^1\). The presentation can range from asymptomatic to severely symptomatic with complications requiring emergency treatment. Systemic ailments include bleeding, infection and renal failure; local catastrophes include pathologic fractures and spinal cord...
Although patients benefit from chemotherapeutic treatment, currently no cure exists. Serious complications to spinal manipulation are most often seen in the cervical region. In our report, the initial presentation of MM was a paraparetic syndrome secondary to upper thoracic spine compression by vertebral infiltration. The massage therapy manipulation was just the trigger to collapse an already fragile bone column, initiating a progressive paraparetic course.

The premature diagnosis of MM based in dorsalgia could have avoided the spinal compression and catastrophic evolution to paraplegia. The protocol of this case has failed to identify emergence signs and symptoms, what could have warranted immediate hospital admission and emergency MRI, with possible decompression of thoracic spine by a laminectomy of the affected levels.

We discuss the potential harms to the patient when initiating a questionable treatment method, which are late diagnosis, direct physical harm, interference with traditional treatments, financial harm and time loss.

Alternative treatments are valuable tools to control refractory symptoms, especially pain. But we reinforce the need of adequate medical screening before performing therapies which may bring unwilling outcomes.

To our knowledge, our report represents the first of paraplegia following massage therapy manipulation in a patient with undiagnosed MM.

We highlight the need of specialized medical evaluation of patients with back pain in the purpose of identifying critical signs and symptoms and considering differential diagnosis, including acute/subacute compressive lesions.

REFERENCES

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