CASO CLÍNICO/CASE REPORT

Hepatocellular Carcinoma Presenting as Subacute Paraplegia

Paraplegia Subaguda como Primeira Manifestação de um Carcinoma Hepatocelular

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Resumo

Introdução: O carcinoma hepatocelular é uma neoplasia maligna primária do fígado que surge maioritariamente em doentes cirróticos. Atualmente é a terceira causa de morte por cancro em todo o mundo. A medula espinhal não é um local frequente de metastização; é frequentemente comprimida por metástases epidurais, mas as lesões intramedulares são muito raras.

Caso Clínico: Aqui apresentamos o caso de um homem de 76 anos, com um quadro de 2 meses de evolução de paraparésia e declínio cognitivo. A ressonância magnética medular revelou uma lesão extensa entre T7 e L1, com captação de gadolínio. A investigação complementar para excluir causas sistémicas de lesões medulares revelou um carcinoma hepatocelular.

Conclusão: Este caso ilustra uma apresentação muito rara de um carcinoma hepatocelular.

Abstract

Introduction: Hepatocellular carcinoma is a primary malignancy of the liver that arises mainly in patients with liver cirrhosis. Nowadays, it is the third leading cause of cancer deaths worldwide. The spinal cord is an uncommon location for metastasis. Usually, spinal cord is compressed by epidural metastasis but intramedullary lesions are very rare.

Case Report: We present a 76 year-old-man with a 2-month history of paraparesis and cognitive decline. Spine magnetic resonance imaging revealed an extensive lesion extending from T7 to L1, with gadolinium enhancement. Further investigation to exclude systemic causes of medullary lesions revealed a hepatocellular carcinoma.

Conclusion: This case illustrates a very rare presentation of hepatocellular carcinoma.

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Introduction

The majority of hepatocellular carcinomas arise in patients with liver cirrhosis,[1] mostly in East-Asia and Sub-Saharan African countries. The commonest locations of hepatocellular carcinomas metastasis are lung, adrenal glands, lymph nodes and bones (thoracic spine being the commonest site[2,3]). Spinal cord is frequently compressed by epidural metastasis but intramedullary lesions are very rare. Some authors advocate that hepatocellular carcinoma spreads through haematogenous route and Batson's venous plexus.[2,4] However, spinal metastasis of hepatocellular carcinomas are exceptional. The involvement of the spinal cord usually predicts a bad prognosis.[3] In a recent retrospective review, intramedullary spinal cord metastasis were the presenting feature in 20% of patients.[5]

Case Report

A 76-year-old man, previously autonomous in his daily life, presented with a two-month history of progressive cognitive decline, paraparesis and urinary incontinence. He denied trauma, febrile illnesses, weight loss or other systemic complaints. There was no contact with animals and no recent travels.

His past medical history included hypertension, type 2 diabetes, anticoagulation for atrial fibrillation and excessive alcohol intake.

Neurologic examination showed a difficulty in concentration, disorientation in time and place, disinhibition, manipulation of the environment, no major language deficits. There were no cranial nerve deficits. He was paraplegic with a sensory level by T9; osteotendinous reflexes were absent and cutaneous plantar response was indifferent.

Brain magnetic resonance imaging (MRI) revealed an extensive leukoencephalopathy and global brain atrophy.

Spine MRI evidenced a lesion extending from T7 to L1, with conus medullaris expansion and nodular enhancement with gadolinium (Figs. 1A and 1B), suggesting a neoplastic lesion; no vascular voids, microbleeds or calcification were found.

A lumbar puncture was performed, showing: pleocytosis of 77 cells/μL (40% being polymorphonuclears), no glucose consumption, proteinorrhaquia (90 mg/dL). Cultural exam of cerebrospinal fluid (CSF) was negative for bacteria, herpetic family virus, Borrelia species and mycobacteria. Oligoclonal bands were negative. CSF immunophenotypic and anatomopathological exams were negative.

Figure 1A. Spine MRI:T2 sequence.

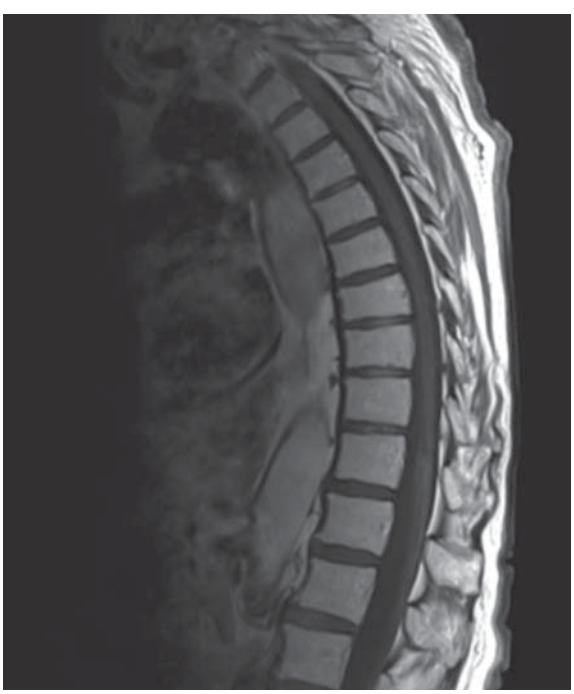

Figure 1B. Spine MRI: T1 Gadolinium sequence.

Patient analysis showed a normocytic normochromic anaemia, a mild hepatocellular dysfunction, a B12 vitamin deficit and an elevated sedimentation rate and reactive C protein. Anti-aquaporin 4 antibodies were negative. Anti-neuronal antibodies were positive for anti-titin, negative for other antibodies.

The patient went through abdominal computed to-

mography (CT), which evidenced a hepatic nodule. MRI showed a hypointense lesion on T1 and T2, with approximately 3x2.8 cm, with intense contrast enhancement in arterial phase and hypointense in venous phase, suggesting a neoformation due to the fast washout (Figs. 2A and 2B).

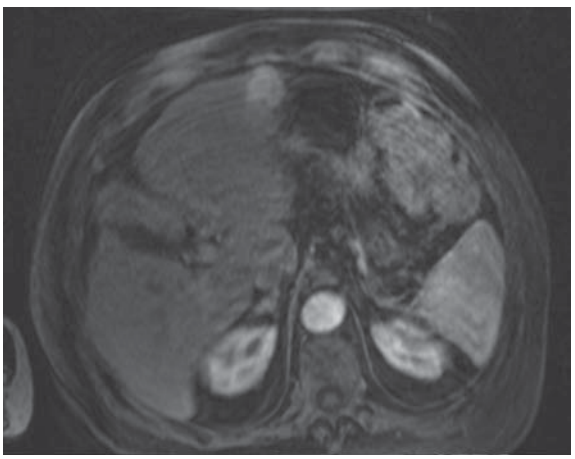

Figure 2A. Abdominal MRI: T1 sequence - arterial phase.

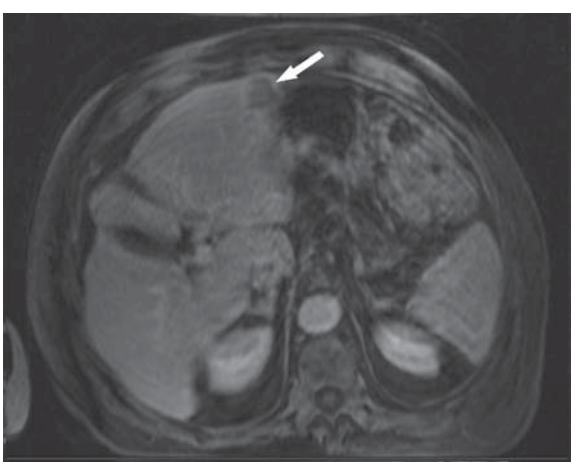

Figure 2B. Abdominal MRI: T1 sequence - venous phase.

A biopsy of the lesion revealed a moderately differentiated hepatocellular carcinoma.

Concerning the hypothesis that the medullar lesion could be paraneoplastic in its nature, he went through 5 days course of methylprednisolone, subsequently converted to oral corticotherapy. There were no signs of clinical improvement, and his condition finally deteriorated, leading to death sixty days after admission.

Discussion

This case illustrates a very rare presentation of hepatocellular carcinoma. Usually, neurological involvement is secondary to compressive lesions affecting the vertebrae. In this case, the lesion is primary intramedullary, which is exceptional.

Lesion characteristics on abdominal MRI point to a neoplastic origin, but an inflammatory aetiology cannot be excluded, since a biopsy was not performed. Nevertheless, there was no response to high dose corticotherapy, which disfavours the inflammatory hypothesis. Although an anatomopathological analysis of the medullary lesion is missing, the probability that the lesion is related to the hepatocellular carcinoma is high.

This case is also remarkable for the positivity for anti-titin antibodies. As far as we know, these antibodies are present in patients with myasthenia-associated thymomas but its presence was also referred to be associated with paraneoplastic syndromes.[6] ■

Responsabilidades Éticas

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