

## Femoral Neuropathy Associated with Prophylactic Anticoagulation in a Patient with Severe COVID-19: A Case Report

### Neuropatia do Femoral Associada à Anticoagulação Profilática num Doente com COVID-19 Grave: Caso Clínico

**Keywords:** Anticoagulants/adverse effects; COVID-19/complications; Femoral Neuropathy/chemically induced

**Palavras-chave:** Anticoagulantes/efeitos adversos; COVID-19/complicações; Neuropatia Femoral/induzida quimicamente

To the Editor:

Thromboembolic events have been described among individuals infected with SARS-CoV-2, particularly in critically ill patients, and therefore thromboprophylaxis is recommended in these patients.<sup>1</sup>

A high level of suspicion concerning bleeding complications in patients under anticoagulation is required in order to promptly recognize the hemorrhage and immediately suspend the anticoagulation.

We describe the case of a 72-year-old male with severe COVID-19 who received thromboembolism prophylaxis with enoxaparin.

On the 20<sup>th</sup> day of admission, he complained of the onset of left groin pain, numbness, difficulty walking with significantly decreased muscle strength during hip flexion and knee extension, with sensory loss of the anterior medial thigh, medial calf and absent patellar tendon reflex. He had a low hemoglobin level, and a computed tomography (CT) scan identified a left iliac muscle hematoma. Femoral nerve injury was suspected due to compression caused by the hematoma. The hematoma was managed conservatively, and enoxaparin was suspended. Due to severe functional impairment, he was admitted to the Rehabilitation Unit. The electrodiagnostic examination (EDX) confirmed the diagnosis. Although the clinical presentation of quadriceps atrophy, decreased muscle strength and sensory loss did not improve, the patient acquired full autonomy, including walking, with a knee orthosis with range-of-motion restriction feature (0° - 30°) and crutches, and was discharged on the 77<sup>th</sup> day.

Five months later, the EDX showed signs of reinnervation

of the iliac muscle. The patient remained stable up to 10 months, when there was an increase in muscle strength during knee extension, a reduction in the hypoesthesia area in the anterior thigh, and gait was possible just with the knee orthosis. A CT scan revealed complete hematoma reabsorption. Two years after the diagnosis, muscle strength during hip flexion had fully recovered as well as sensory function; there was an improvement in muscle strength during knee extension and gait (Table 1).

Isolated femoral neuropathy is uncommon and retroperitoneal hemorrhage is a rare cause.<sup>2</sup>

Although there is no consensus about the therapeutic approach, conservative treatment must be considered when there is no continued bleeding or progressive neurological defects.<sup>3</sup> Therefore close monitoring of the neurological examination of hemodynamic stability and hemoglobin levels are essential in a conservative approach. The evidence of neurological worsening or continued bleeding calls for a surgical evacuation of the hematoma.<sup>3</sup>

Physical and Rehabilitation Medicine interventions include diagnosis, pain management, physical and occupational therapy and orthosis prescribing and, all play an important role in both the initial care as well as during follow-up. The prognosis and recovery time depend on the degree of axonal loss.<sup>2</sup> In this case, after two years there were still sequelae of the neuropathy with impaired muscle strength during knee extension. However, a conservative approach was well tolerated and a good functional outcome was achieved.

#### PREVIOUS PRESENTATIONS

Part of the clinical case was previously presented at the “XXI Congresso Nacional da Sociedade Portuguesa de Medicina Física e Reabilitação”, as an oral communication, in October 15<sup>th</sup>, 2021.

#### AUTHOR CONTRIBUTIONS

AAP: Literature research, case description and discussion.

MM: Literature research, contribution to the discussion.

VBS, MAS, ACM: Critical review of the work.

Table 1 - Summary of clinical, radiological and electrodiagnostic findings

	Day 20 <sup>th</sup>	PRM admission	PRM discharge	5 months	10 months	24 months
<b>Strength measure</b> (left lower limb) – MRC score						
Hip flexion	1/5	2/5	2/5	2/5	3/5	5/5
Knee extension	1/5	1/5	1/5	1/5	3/5	4/5
<b>Gait</b>	with OT and crutches				with OT	without aids
<b>CT scan</b>	iliac muscle hematoma				complete reabsorption	
<b>Electrodiagnostic examination</b>	severe axonal lesion of the left femoral nerve associated with probable sensorimotor neuropathy			signs of reinnervation of the iliac muscle		

CT: computed tomography (electrodiagnostic examination); MRC: Medical Research Council; OT: orthosis; PRM: Physical and Rehabilitation Medicine

**PROTECTION OF HUMANS AND ANIMALS**

The authors declare that the procedures were followed according to the regulations established by the Clinical Research and Ethics Committee and to the Helsinki Declaration of the World Medical Association updated in 2013.

**PATIENT CONSENT**

Obtained.

**REFERENCES**

1. Allegra A, Innao V, Allegra AG, Musolino C. Coagulopathy and thromboembolic events in patients with SARS-CoV-2 infection: pathogenesis and management strategies. *Ann Hematol.* 2020;99:1953-65.
2. Preston DC, Shapiro BE. Femoral neuropathy. In: *Electromyography and neuromuscular disorders.* Philadelphia: Elsevier; 2021. p. 459-67.
3. Tosun A, İnal E, Keleş I, Tulmaç M, Tosun Ö, Aydın G, et al. Conservative treatment of femoral neuropathy following retroperitoneal hemorrhage: a case report and review of literature. *Blood Coagul Fibrinolysis.* 2014;25:769-72.

**COMPETING INTERESTS**

The authors have declared that no competing interests exist.

**FUNDING SOURCES**

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Ana ALMEIDA PEREIRA<sup>✉1</sup>, Mariana MARTINS<sup>1</sup>, Vítor BRÁS SILVA<sup>1</sup>, Marta AMARAL SILVA<sup>1</sup>, Ana Catarina MIGUÉNS<sup>1</sup>

<sup>1</sup>. Unidade Funcional Músculo-esquelética. Serviço de Medicina Física e de Reabilitação. Centro Hospitalar e Universitário de Lisboa Central. Lisboa. Portugal.

✉ Autor correspondente: Ana Almeida Pereira. [ana.pereira42@chlc.min-saude.pt](mailto:ana.pereira42@chlc.min-saude.pt)

Recebido/Received: 23/10/2022 - Aceite/Accepted: 06/01/2023 - Publicado Online/Published Online: 26/01/2023 - Publicado/Published: 01/03/2023

Copyright © Ordem dos Médicos 2023

<https://doi.org/10.20344/amp.19150>



## Reconciliação Terapêutica na Admissão de um Serviço de Medicina Interna: A Perspetiva dos Cuidados de Saúde Primários

### Medication Reconciliation during Admission to an Internal Medicine Department: The Perspective of Primary Health Care

**Palavras-chave:** Cuidado Transicional; Cuidados de Saúde Primários; Erros de Medicação; Medicina Interna; Reconciliação de Medicamentos; Segurança do Doente

**Keywords:** Internal Medicine; Medication Errors; Medication Reconciliation; Patient Safety; Primary Health Care; Transitional Care

Caro Editor:

Foi com interesse e entusiasmo que lemos o artigo “Reconciliação Terapêutica na Admissão de um Serviço de Medicina Interna: Estudo-Piloto”,<sup>1</sup> publicado em novembro de 2022, cujo principal objetivo se prende com a identificação dos recursos necessários para a implementação da reconciliação terapêutica na prática clínica.

Alinhado e em continuidade com o Plano Nacional para a Segurança dos Doentes (PNSD) 2015 - 2020, o PNSD 2021 - 2026 objetiva consolidar e promover a segurança na prestação de cuidados de saúde no sistema de saúde.<sup>2</sup>

As falhas na comunicação são das principais causas de eventos adversos na saúde, ocorrendo a maioria nos momentos de transição de cuidados.<sup>3</sup> Esta transição intra/intra-instituições prestadoras de cuidados de saúde aumenta

o risco de incidentes relacionados com a medicação e de admissões hospitalares evitáveis.<sup>4,5</sup>

A reconciliação da medicação é um processo multidisciplinar, centrado no doente, que contribui significativamente para a redução de incidentes relacionados com a medicação.<sup>4</sup>

Para a construção da *best possible medication history* (BPMH), os investigadores recorreram a várias fontes de informação: lista de medicação fornecida pelo doente, sacco de medicação, familiar ou cuidador e à Plataforma de Dados de Saúde (PDS). Contudo, o acesso a esta plataforma digital de abrangência nacional apresentou várias limitações: inacessibilidade, indisponibilidade de funcionalidades e desatualização da lista da medicação crónica. Estas dificuldades e limitações são também vivenciadas na prática diária nos Cuidados de Saúde Primários (CSP), afetando a coordenação de cuidados.

Salientamos ainda o impacto que as discrepâncias terapêuticas não documentadas e as omissões transmitidas aquando da alta hospitalar têm na continuidade de cuidados e no tratamento adequado.<sup>2,5</sup>

Os CSP, pelo seu carácter contínuo e longitudinal, desempenham um papel crucial no processo de reconciliação terapêutica, devendo contribuir ativamente para a manutenção de uma lista atualizada e acessível da terapêutica dos doentes.

Concordamos que a reconciliação terapêutica deve ser um processo multidisciplinar, envolvendo todos os