

Acquired hemophilia A secondary to rheumatoid arthritis

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Summary

Acquired hemophilia A (AHA) is a rare plasma diathesis. Unlike congenital hemophilia A, AHA occurs in both sexes and the incidence of the disease increases with age. It is caused by the production of autoantibodies against the coagulation factor VIII. AHA can be primary or secondary. The clinical course is characterized by a rapid development of symptoms, massive bleeding and high mortality. In the described case, a 69-year-old female was successfully treated for severe AHA with bypass-concentrate — recombinant activated factor VII and immunosuppressive therapy.

Key words: acquired hemophilia A, bleeding disorder, prolonged activated partial thromboplastin time, factor VIII, aPCC, rFVIIa

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Introduction

Acquired hemophilia A (AHA) is a rare hemorrhagic diathesis of an autoimmune origin caused by the spontaneous development of autoantibodies against the coagulation factor VIII [1]. It can be associated with an underlying malignancy, pregnancy, some medications or autoimmune conditions such as *systemic lupus erythematosus* (SLE), rheumatoid arthritis (RA) and Sjögren's syndrome; however, 50% of cases are idiopathic [2].

Unlike congenital hemophilia, which occurs in males, acquired hemophilia occurs in both sexes. AHA, with an incidence of at least 1.3–1.5 per million per year, is a sporadic but very serious condition in which severe bleeding occurs in a significant number (70%) of cases, and it is fatal in 5–10% of the cases. The overall death rate may increase to more than 40% due to multiple factors, including delayed diagnosis, treatment inadequacies and hemorrhagic complications during invasive procedures [3], what is an important reason why physicians and specialists in the he-

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Figure 1. Severe bleeding into the skin

althcare system should rapidly recognize typical clinical manifestations of AHA, which include spontaneous hemorrhaging into the skin, muscles, and soft tissues, and excessive bleeding during interventional procedures [4].

Case report

We hereby present a case of a 69-year-old woman with a serious complication of AHA, caused by factor VIII inhibitors, who also suffers from a 25-year history of rheumatoid arthritis (RA). The patient was admitted to the Department of Hematology with a massive epistaxis and severe bleeding into the skin and muscles (Fig. 1). There was no record of any injury, previous bleeding diathesis nor anticoagulation therapy.

In the essential laboratory tests performed, isolated prolongation of activated partial thromboplastin time (APTT) was detected [55 s (range 27–37), retested] as well as a decrease in the hemoglobin level [9,1 g/dl (range 12.0–16.0)]. Factor VIII activity was below detection threshold. The patient was tested negatively for lupus anticoagulant (LA). In order to confirm AHA we performed a mixing study test, which showed no correction of the APTT value. In the assay performed using the Bethesda method, the inhibitor titer was 19 Bethesda Units/ml (BU/ml).

The patient was treated in accordance with the guidelines [5, 6] with a bypass-concentrate — recombinant activated factor VII (rFVIIa) at a dose

of 90 $\mu\text{g}/\text{kg}$ every 3 hours and immunosuppressive drugs: 1000 mg cyclophosphamide pulse therapy (once a week) with prednisone (1 mg/kg/day). As the hemoglobin level stabilized and no symptoms of active bleeding were present, the dosing interval of rFVIIa was increased. The inhibitor level was gradually reduced with an improvement in FVIII activity. After FVIII activity had normalized, rFVIIa was discontinued. No symptoms of active bleeding were observed afterwards. During hospitalization time there was no need to use another bypass-concentrate — activated prothrombin complex concentrate (aPCC).

Discussion

Our patient with AHA secondary to rheumatoid arthritis who presented with massive epistaxis and bleeding into the skin and muscles had a successful outcome thanks to rapid diagnosis and treatment.

We would like to emphasize, that in order to reduce mortality, hospitals must ensure the availability of bypassing agents and perform a mixing study test 24/7. Additionally, there is a continual need to educate medical professionals about AHA.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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