Case Report

Guillain-Barré Syndrome After Allogeneic Bone Marrow Transplantation

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Abstract

Guillain-Barré is an autoimmune disorder of peripheral motor system. It has been associated with many conditions. We describe a case of Guillain-Barré after Bone Marrow Transplant.

ABBREVIATIONS

BMT: Bone Marrow Transplant, CMV: Cytomegalovirus, GB: Guillain-Barré, GVHD: Graft-Versus-Host Disease, MRI: Magnetic Resonance Image

INTRODUCTION

GB is an autoimmune disease. It has been associated with many other disorders. Here, we describe a case of GB after BMT.

CASE PRESENTATION

A 31-years-old caucasian female patient with Acute Myeloid Leukemia was submitted to an allogeneic bone marrow transplant. She developed hepatic and gastrointestinal Graft-Versus-Host Disease 2 weeks after transplantation. She was treated with Methylprednisolone, Mycophenolate and Basiliximab. One week later, she had a Cytomegalovirus reactivation being initiated Ganciclovir, suspended 1 week after because pancytopenia. Two weeks following the CMV reactivation, she started with walking disability and paraparesis. On neurologic exam a lower limb weakness was noted (Medical Research Council: 1/5 proximal and 3/5 distal), with areflexia and no sensory signs. She was submitted to a MRI which was normal and a lumbar puncture with albumino-cytological dissociation (0 white blood cells, 173 mg/dL protein, 134 Glucose, CSF cultures and viral polymerase chain reactions were negative, as Cytopatologic exam). Weakness progressed to superior limbs. ENMG showed no F waves and prolonged motor latencies. The diagnosis of Guillain-Barré (GB) syndrome was established and immunoglobulin was started as well as Ganciclovir. Besides these conducts, weakness progressed and ventilator support was necessary 10 days after neurologic symptoms. She proceed to pulmonary sepsis and hepatic GVHD. One week later she died of multiple system failure.

DISCUSSION

GB syndrome in BMT context is a rare but well described complication. Wen [1] described an active search for GB cases after BMT and it was found 4 patients after allogeneic transplant in a total of 793 individuals and no case in autologous (650 BMT). Bulsara [2] reviewed 212 cases of GB in Duke University and he published 2 cases after autogenic BMT, and other 2 after solid organ transplantation. Zhang [3] reviewed the literature in 2008 and reported 23 cases of GB after allogeneic BMT, 10 cases after autologous BMT and 30 cases after solid organ transplantation. They had some epidemiological differences between them. It might be due intrinsic bias of case reviews. Many of them presented infection before (41%), being CMV the most common. In those cases, GB was attributed to different reasons, like infection, GVHD, and immunosuppressive drugs. A consensus [4] about chronic GVHD was published in 2010 where GB is regarded as an “associated symptom”, but it is not specific for this disorder. In our case, we could attribute the Guillain-Barré to CMV infection, since our patient had a CMV reactivation earlier in the course of the disease. However, it cannot be excluded GVHD since she had some manifestation of this condition in other systems as well. Thone [5] reported a GB patient who recovery with immunosuppressive therapy, after he had failed plasmapheresis and immunoglobulin. We believe our patient died of complication of BMT, being Guillain- barray a contributor. As in review by Zhang, the patients in allogeneic BMT and GB had a high mortality rate (about half the cases), even some of them had motor improvement. Thus GB patients after allogeneic BMT might have a worse prognosis.

Even being a rare disorder, it is well-documented, and it should be better appreciated in basic and clinical trials, since the complexity of the patients submitted to this procedure, the complications related to it and the high mortality rates in this populations.

REFERENCES

1. Wen PY, Alyea EP, Simon D, Herbst RS, Soiffer RJ, Antin JH. Guillain-


