LIPOSARCOMA IN A PATIENT WITH MULTIPLE SCLEROSIS UNDERGOING INTERFERON BETA 1-B THERAPY

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Introduction

Liposarcoma is a rare malignant tumor that arises in fat cells of deep soft tissues such as the retroperitoneum. We report on a case of liposarcoma in a patient with secondary progressive multiple sclerosis (SPMS) who was receiving interferon beta-1b.

Case Report

A 60-year-old hypertensive woman was given the diagnosis of relapsing-remitting multiple sclerosis at the age of 43 years when she presented with diplopia shortly followed by paresis of her left lower limb. She presented with subsequent bouts of myelitis for the following five years without complete recovery of strength and sphincter functions. In 2001, at the age of 49, she was started on interferon beta-1b with improvements regarding the frequency and intensity of the events. However, it was noted that she progressively worsened after each demyelinating event, and reached expanded disability status scale score of 6.0, leading us to diagnose SPMS. Magnetic resonance image of the brain showed marked abnormalities in the white matter (Figure 1).

In 2010, after nine years of immunomodulatory treatment with interferon beta-1b, the patient developed abdominal pain, weight loss and anemia. Abdominal computed tomography revealed a retroperitoneal mass, which was excised. Histopathology on this mass showed that it was a well-differentiated liposarcoma (Figure 2). Interferon beta-1b was stopped. In spite of tumor removal, the patient continued to present demyelinating attacks.

Conclusion

This case report highlights the possible link between immunomodulatory drugs and systemic tumors. Although we could not confirm this relationship, and indeed it could be merely coincidental, the drug was discontinued.

To the best of our knowledge association of immunomodulator agents with liposarcoma had not been reported previously.

Figure 1. Brain MRI. Marked FLAIR abnormalities in the periventricular white matter

Figure 2 A

Figure 2 B

Figure 2 C

Figure 2. Liposarcoma histopathology.
2A. Pleomorphic tumor with more dense fibrous areas and areas of lipogenic cells.
2B. Cells with hyperchromatic nucleus and lipoblasts with spindle cells.
2C. High magnification showing signet-ring large cells with fat.