

# Answer

## Primary Splenic High-Grade Lymphoma

**P** rimary splenic lymphoma is rare, representing less than 2% of all lymphomas.<sup>1</sup> However, B-cell lymphomas are seen with increasing frequency in patients with chronic hepatitis C. This patient was known to have a splenic mass that was being followed up with serial CT scans because the working diagnosis at the time was a hepatoma metastatic to the spleen. Recently, the mass increased in size and the patient underwent a splenectomy. The patient also had a corresponding rise in his  $\alpha$ -fetoprotein level. After the splenectomy, the  $\alpha$ -fetoprotein level decreased significantly. However, it did not return to the normal range.

Several epidemiologic studies suggest that hepatitis C virus may be involved in the pathogenesis of B-cell lymphomas.<sup>2</sup> These may range from low-grade to high-grade non-Hodgkin's lymphomas. This patient had a known mass in his spleen that suddenly increased in size. Therefore, it is possible that he had a low-grade, marginal-zone lymphoma that became transformed by the hepatitis C into a high-grade lymphoma.

$\alpha$ -Fetoprotein is a tumor marker that is used to evaluate patients for hepatocellular carcinoma. Also, elevated  $\alpha$ -fetoprotein levels are frequently seen with certain germ cell tumors. However, to our knowledge, there is only 1 case report in the literature that reports a correlation between an elevated  $\alpha$ -fetoprotein level and a lymphoma.<sup>3</sup> Therefore, it is of uncertain significance that the  $\alpha$ -fetoprotein level rose in conjunction with an increase in size of the lymphoma and then decreased once the lymphoma was removed. It is conceivable that the rise in the  $\alpha$ -fetoprotein level is related to the hepatitis C virus inflammatory response. However, we would not have expected it to decrease after the splenectomy.

Further studies and a better understanding of hepatitis C viral infection will help us explain the association between B-cell lymphomas and hepatitis C. However, any patient who has hepatitis C should undergo close surveillance for both hepatomas and lymphomas.

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