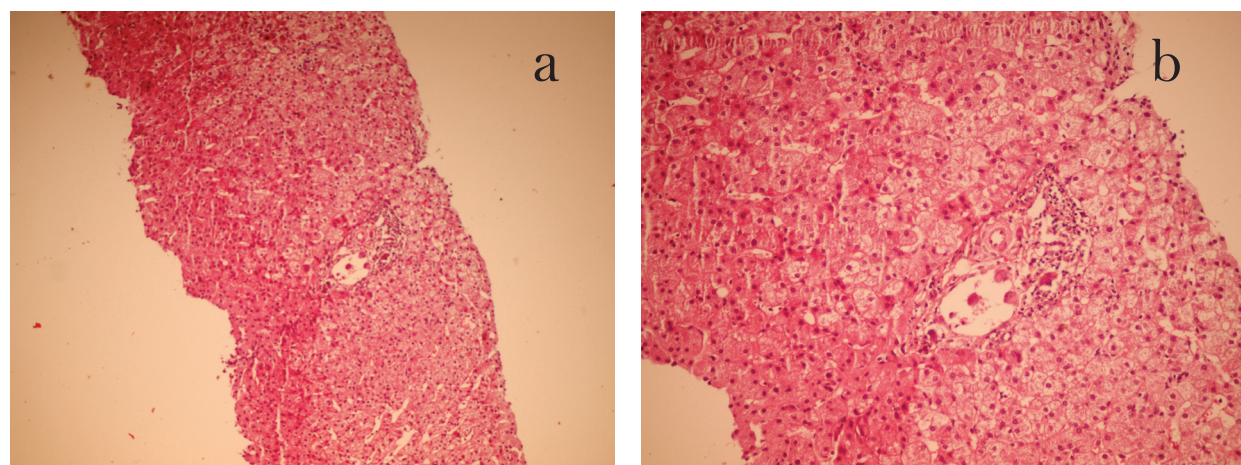


## Abnormal Liver Enzymes during the First Two Months of Liver Transplantation

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**Figure 1:** Sections from transplanted liver needle biopsy 50 days after the transplantation. a) Low magnification ( $\times 100$ ), b) high magnification ( $\times 400$ ) H&E staining.

A 22-year-old woman, known case of autoimmune hepatitis, underwent liver transplantation. She discharged from the hospital in good condition. After 50 days, she presented with abnormal liver enzyme (ALT=117 IU/L, AST=167 IU/L). Laboratory investigation showed positive IgM anti-CMV antibody. Anti-VCA (EBV) IgM was negative. Liver biopsy was performed (Fig 1). All the bacterial and fungal cultures were negative.

**WHAT IS YOUR DIAGNOSIS?**

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## DIAGNOSIS: POST-LIVER TRANSPLANTATION CYTOMEGALOVIRUS HEPATITIS

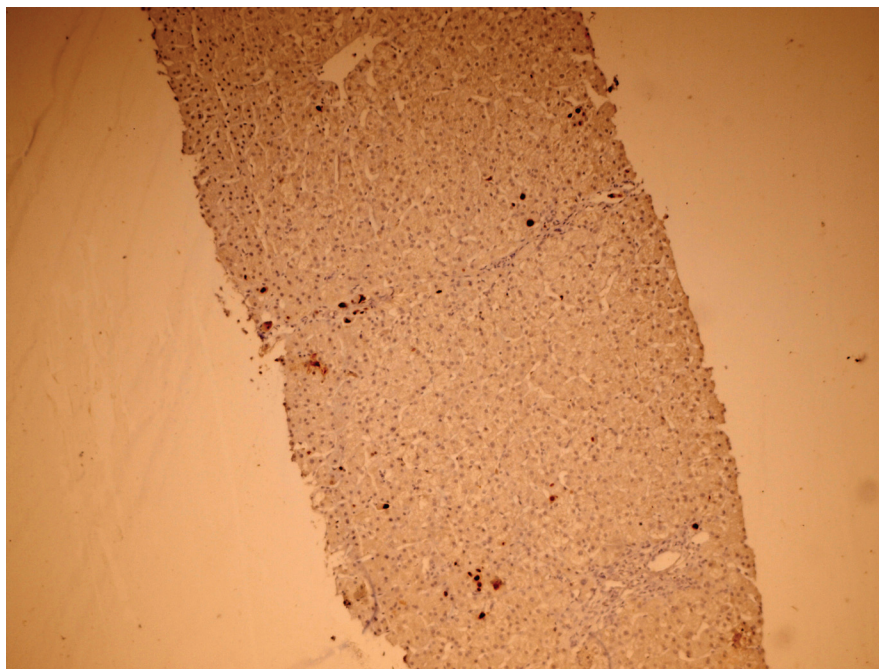
The differential diagnosis of liver dysfunction after orthotopic liver transplantation can be challenging. Cytomegalovirus (CMV) hepatitis is one possibility [1]. It is not common and occurs in 2.4% of liver transplant patients [2]. The incidence of CMV infection after liver transplantation depends on several factors including the available diagnostic tools, donor and recipient sero-status, the peri-operative prophylaxis, and anti-rejection and immunosuppressive regimen used [3].

Diagnosis of CMV hepatitis after liver transplantation can be made by measuring IgM anti-CMV antibody, molecular methods such as real-time PCR, virus culture and liver biopsy. Liver biopsy is the gold-standard test for

the diagnosis CMV hepatitis. The diagnosis is made by detecting viral CMV inclusion bodies in H&E and immunohistochemical staining (Fig 2).

## REFERENCES

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**Figure 2:** Immunohistochemical staining of sections from the liver needle biopsy showing CMV inclusion bodies