

# Fatal Systemic Herpes Simplex Virus Infection With Atypical Clinical Manifestation Early After Living Donor Liver Transplantation

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**Background :** Although immunosuppressive agents after liver transplantation are essential for maintaining graft function, they also increase the incidence of various opportunistic infections. Herpes simplex virus (HSV) infection rarely causes HSV-induced hepatitis, often leading to severe liver failure. We report a case of rare but fatal systemic HSV infection with atypical clinical manifestations early after living donor liver transplantation (LDLT).

**Methods :** A 45-year-old female patient underwent LDLT using a left liver graft from an ex-spouse. Mild erythematous erosive patches developed on both palms and soles on POD 12 and topical desonide was applied. However, as the extent and severity of skin lesions worsened, we decided to perform a skin biopsy. At the same time, aspartate aminotransferase, alanine aminotransferase, and total bilirubin levels increased rapidly. Since the CT scan could not reveal the specific cause of liver dysfunction, we also performed a sonography-guided liver biopsy.

**Results :** A skin biopsy and liver biopsy showed very distinctive features compatible with HSV infection. Although high-dose intravenous acyclovir was promptly administered, the skin lesion covered the skin of the entire body. The patient died due to multiorgan failure on POD 28.

**Conclusions :** Our case report presents a fatal and atypical HSV infection with systemic involvement early after living donor liver transplantation. We should consider HSV as a source of severe opportunistic infections and make efforts for prevention and an early diagnosis.

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