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Cyclosporine and Hepatitis C

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ABSTRACT

End stage liver disease from hepatitis C is a leading indication for liver transplantation. Recurrent hepatitis C after liver transplant may lead to cirrhosis and graft failure in up to 25% of recipients five years after liver transplantation. Anti-viral therapy is challenging after liver transplantation due to increased side effects including cytopenias and decreased efficacy compared to the nontransplant population. Tacrolimus and cyclosporine are the most common immunosuppressants used to prevent graft rejection. Tacrolimus is more potent than cyclosporine and may be preferred to cyclosporine. However, cyclosporine may have activity against hepatitis C and may have a theoretical advantage to tacrolimus in hepatitis liver transplant recipients. Cyclosporine may inhibit NS5B and NS5A protein complexes and increase endogenous interferon activity. Cyclophilin inhibitors without immunosuppressive properties are under development and represent a novel mechanisms for inhibiting HCV replication.

KEYWORDS

Immunosuppression; Liver; Transplant

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