



INTRODUCTION

Chronic hepatitis C, which affects more than 170 million people in the world and may eventually lead to cirrhosis and hepatocellular carcinoma (*Chiaki et al., 2006*). Alpha-interferon (alpha-IFN) is widely used in the treatment of viral hepatitis, either alone or combined with other antiviral therapies such as ribavirin (*Louis et al., 2005*).

The pegylated-interferon IFN and ribavirin combination therapy has shown a sustained virologic response rates of 46%-77%, depending on viral genotype. Evidence has also emerged regarding the utility of interferon in cirrhotic hepatitis C treatment with reduced rates of both hepatocellular carcinoma and improved survival (*Iman et al., 2006*).

Interferon (IFN) has been used clinically to treat numerous viral and malignant diseases in many organs including the eye (*Taiji et al., 2007*).

The combination of (IFN) and ribavirin is associated with multiple side effects. Although interferon therapy can affect any organ system, the most commonly reported side effects include flu-like symptoms such as fever, chills, myalgia, fatigue, diarrhea, nausea and vomiting. Central nervous system disturbances including depression, suicidal ideation, confusion and mental status changes can occur, especially in patients with pre-existing histories. Hematologic side effects, including anemia, thrombocytopenia, and neutropenia (*Fried et al., 2002*).



Ophthalmologic side effects were first reported in 1990 by Ikebe et al. in the form of retinal injury (*Ikebe et al., 1990*).

Ocular complications of interferon therapy have been widely observed. It occurs between 2 weeks and 5 months from the beginning of treatment, but most frequently between 4 and 12 weeks, and is seen in 18–86% of patients (*Kawano et al., 1996*).

IFN-induced retinopathy was thereafter described as an association of cotton-wool spots, retinal hemorrhage and micro aneurysms (*Hayasaka et al., 1995*).

Other severe ophthalmologic complications have also been reported under IFN therapy such as acute exophthalmia. Sub-conjunctival hemorrhage, papilledema, retinal artery occlusion and retinal vein thrombosis (*Nadir et al., 2000*).

Ophthalmological complications with interferon therapy are usually mild and reversible, not requiring the withdrawal of the treatment (*Luiciana et al., 2006*).