

Ocular Complications of PEG-Interferon

ETAC Team



PEG-IFN Associated Retinopathy

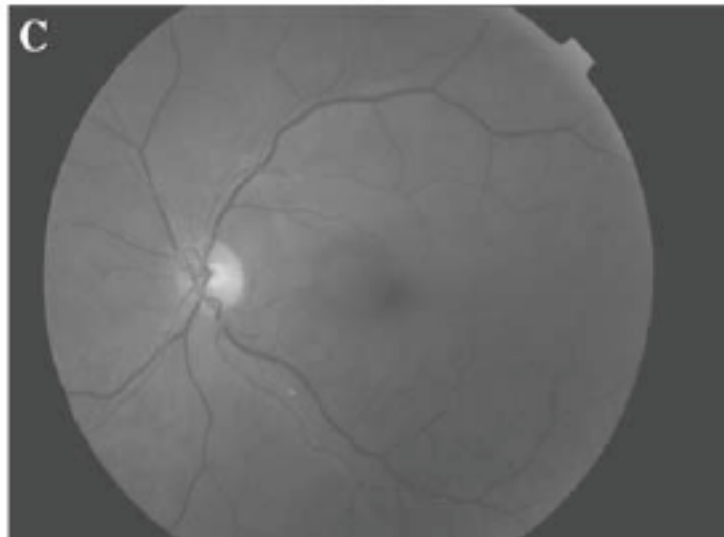
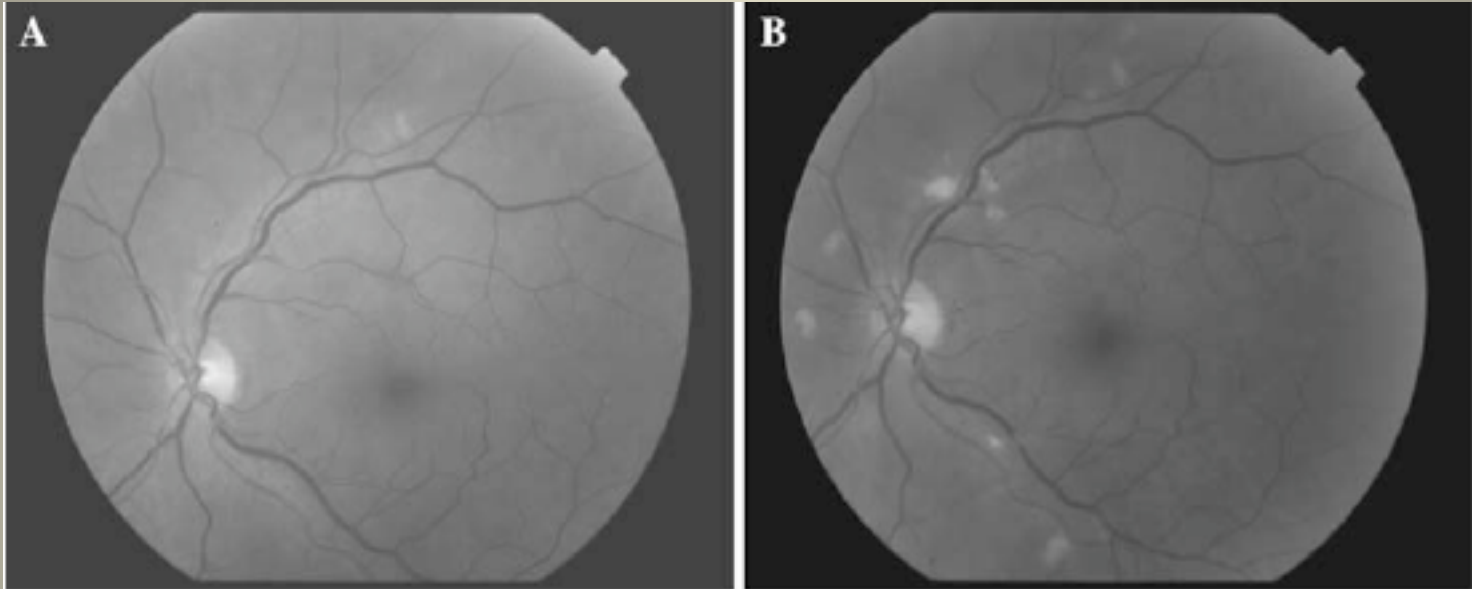
- First described in 1990
- Incidence 18-86%, only 0.4% symptomatic in a large study.
- Unknown mechanism
- Ribavirin has synergistic effects
- Pretreatment eye exam did not predict risk of retinopathy

PEG-IFN Associated Retinopathy: Classic Presentations

- Most asymptomatic and reversible
- Cotton wool spots and superficial hemorrhages
- Occur in the first 16 weeks, most resolved within 8 weeks after treatment completion

Cotton Wool Spots

(Metha-Uma 2010)

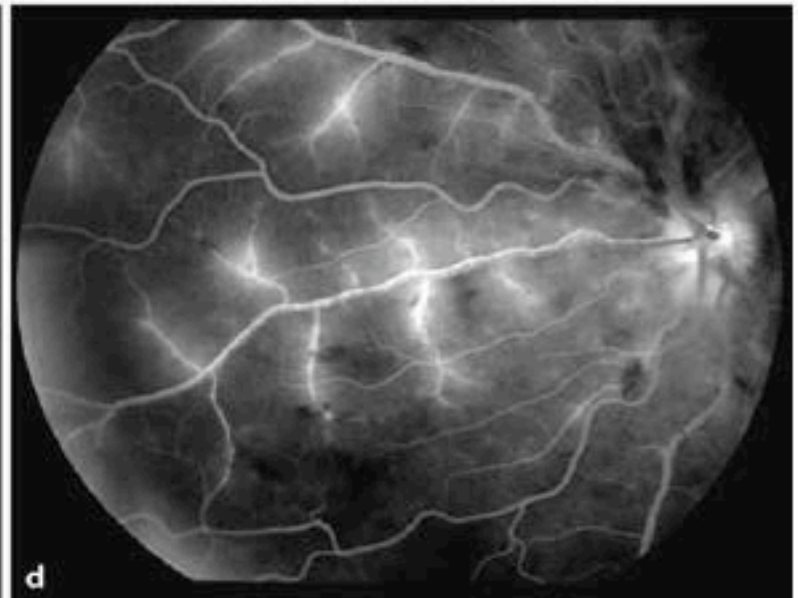
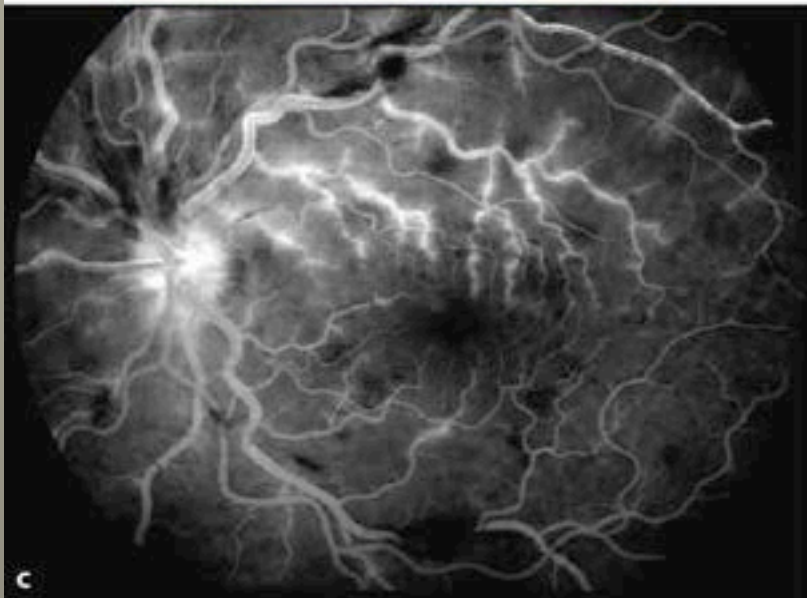


PEG-IFN Associated Retinopathy: Atypical Presentations

- Retinal artery occlusions/mixed vascular occlusions
- Retinal detachments
- Optic disc edema
- Panophthalmitis
- Granulomatous uveitis

Mixed Vascular Occlusion

(Bajaire 2011)



Ophthalmologic Evaluation

(HCV Guideline. HRSA 2010)

- Baseline evaluation recommended inpatients with underlying ophthalmologic conditions/risks
- Interval and frequency of evaluation based on underlying ophthalmologic conditions
- Patients on PEG-IFN with new visual symptoms should have prompt ophthalmologic evaluation

PanOptic Ophthalmoscope

- Easy to enter small, undilated pupils
- Provides a 5X larger view of the fundus
- Increases magnification by 26% over a standard scope
- Greater working distance between practitioner and patient



Management of PEG-IFN Associated Retinopathy

- Regular monitoring with ophthalmologic exam
- No PEG-IFN dose reduction required in most cases

Selected References

- 1: Yan KK, Dinihan I, Freiman J, Zekry A. Sarcoidosis presenting with granulomatous uveitis induced by pegylated interferon and ribavirin therapy for Hepatitis C. Intern Med J. 2008 Mar;38(3):207-10.
- 2: Bazarah SM, et al. Choroidal neovascularization with interferon associated retinopathy: case report and review of literature. Ann Hepatol. 2006 Jul-Sep;5(3):172-6.
- 3: Bajaire BJ, et al. Mixed vascular occlusion in a patient with interferon-associated retinopathy. Case Report Ophthalmol. 2011 Jan 11;2(1):23-9.
- 4: Wei YH, et al. Anterior ischemic optic neuropathy associated with pegylated interferon therapy for chronic hepatitis C. Ocul Immunol Inflamm. 2009 May-Jun;17(3):191-4.
- 5: Mehta N, et al. Outcome of retinopathy in chronic hepatitis C patients treated with peginterferon and ribavirin. Dig Dis Sci. 2010 Feb;55(2):452-7. Epub 2009 Feb 26.
- 6: Okuse C, et al. Risk factors for retinopathy associated with interferonalpha-2b and ribavirin combination therapy in patients with chronic hepatitis C. World J Gastroenterol. 2006 Jun 21;12(23):3756-9.
- 7: d'Alteroche L, et al. Ophthalmologic side effects during alpha-interferon therapy for viral hepatitis. J Hepatol. 2006 Jan;44(1):56-61. Epub 2005 Aug 18.
- 8: Cuthbertson FM, Davies M, McKibbin M. Is screening for interferon retinopathy in hepatitis C justified? Br J Ophthalmol. 2004 Dec;88(12):1518-20.
- 9: Jain K, et al. Retinopathy in chronic hepatitis C patients during interferon treatment with ribavirin. Br J Ophthalmol. 2001 Oct;85(10):1171-3.