**Original article:   
Ocular manifestations in patients with nutritional anaemia  
Dr.Shitole Satish C. , Dr.Jakkal Tapan P.**

Name of the Institute: ESIC-Post graduate Institute of Medical sciences and Research Institute, Parel, Mumbai 12  
Corresponding author: Dr.Shitole Satish C.

Date of submission: 30 June 2014; Date of Publication: 15 September 2014

**Abstract:**

**Background:** Occurrence of anaemic retinopathy and conjunctival pallor is common in nutritional anaemia. Magnitude of retinal manifestations depends upon severity of anaemia. Retinal damage in anaemia occurs due to anoxia, venous stasis, angiospasm and increased capillary permeability.

**Methodology:** Non interventional study was conducted in 48 adult patients diagnosed with nutritional anaemia in gynaecology, medicine and surgery department. Patients with diabetes, hypertension, anaemia other than nutritional causes and media opacities were excluded. After obtaining informed consent ocular examination was carried out with direct torch light illumination and direct ophthalmoscope. Fundus examination was done after dilatation of pupils with tropicamide (mydriatic) eye drops. Patients were examined in more detail in the Ophthalmology O.P.D (whenever possible).

**Results:** Conjunctival pallor was the most common finding and was seen in all patients. Flame shaped retinal haemorrhages was the second most common finding and was seen in 37.50% of patients. Fundal pallor was the third common finding seen in 31.25%. Other ocular manifestations like lid edema, subconjunctival haemorrhage, papilledema, macular star, cotton wool spot etc were less common. Incidence and severityof retinal manifestations was more with more severe grades of anaemia.

**Conclusion:** Anaemia can result in wide variety of ocular manifestations. Patients with conjunctival pallor should be evaluated for anaemia. Patients with moderate to very severe anaemia should undergo mandatory fundus examination for identification of anaemic retinopathy. Incidence and severity of retinal haemorrhages depends on severity of anaemia. Early recognition of retinal manifestation may help in early institution of treatment and thus early resolution of retinal changes.

**Keywords:** Nutritional anaemia, anaemic retinopathy, Severity of anaemia, fundus examination