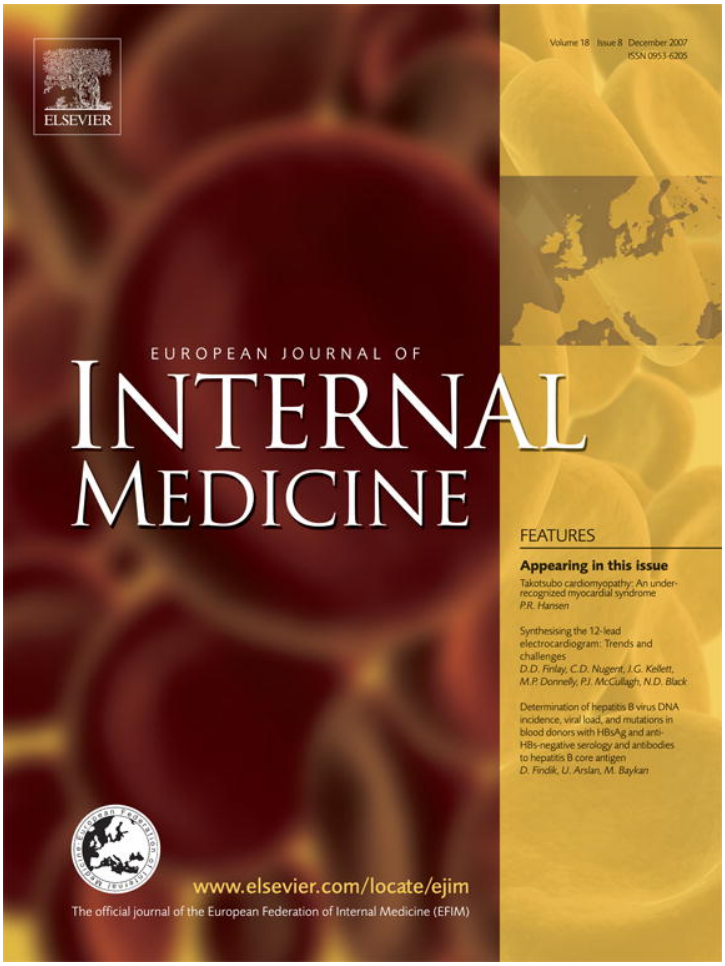

Primary hyperparathyroidism presenting as redness of eyes

Keywords: Primary hyperparathyroidism; Red eye; Scleritis

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Red eye is a common presenting complaint. However, hyperparathyroidism presenting with redness of the eyes as an initial manifestation is unusual [1].

A 38-year-old gentleman was referred for evaluation of severe hypercalcemia. The patient had initially presented to an ophthalmologist with a gradually developing redness of both eyes along with easy fatigability. Slit lamp evaluation confirmed the presence of bilateral scleritis with a retinal haemorrhage. There was no evidence of an infective or inflammatory cause. Antinuclear antibody and rheumatoid factor were negative and serum complement was normal (80%). ESR was not elevated. CBC and bone marrow evaluation was normal. Biochemical investigations repeatedly showed elevated serum calcium levels: 3.65, 3.77 and 3.22 mmol/L on consecutive days (2.07–2.6 mmol/L), a low serum phosphorus of 0.67 mmol/L (0.80–1.45 mmol/L) and an elevated serum alkaline phosphatase of 932 U/L (40–120 U/L). A serum PTH was markedly elevated at 2770 ng/L (12–72 ng/L). Ultrasound of the neck showed a left inferior parathyroid adenoma that was confirmed with a technetium sestamibi scan. The patient underwent excision of the parathyroid adenoma, after which his symptom of redness of eyes resolved.

The commonly described ocular manifestations of hyperparathyroidism include band keratopathy, asymptomatic conjunctival calcification and conjunctivitis. Scleritis as a manifestation of hypercalcemia has not been described and hyperparathyroidism presenting with redness of eyes is unusual [1]. Ocular calcification appears in patients with hypercalcemia when the mathematical product of inorganic calcium and phosphorus ($Ca \times PO_4$) exceeds the value of 3.8–4.0. Possible mechanisms mentioned include (a) CO_2 diffusion from the exposed surface of the eye, leading to increased alkalinity, which promotes calcium deposition [2] and (b) exfoliation of calcium concretions from the superficial corneal epithelium.

The unusual feature in this particular patient's presentation included the presence of red eyes as one of the initial manifestations leading to the diagnosis of hyperparathyroidism. The resolution of redness of eyes was achieved with definitive treatment for hyperparathyroidism.

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Markedly elevated BNP levels unrelated to heart failure in a young septic patient postcesarean section

Keywords: Brain natriuretic peptide; Sepsis; Myocardial dysfunction

Brain natriuretic peptide (BNP) has an unquestionable role in the diagnostic evaluation of dyspnea and suspected heart failure, and it carries prognostic significance in several disorders including chronic heart failure, acute coronary syndromes, and pulmonary embolism. However, in the clinical setting of sepsis, the impact of raised BNP levels is less clear. The relationship between BNP and both left ventricular ejection fraction and filling pressures is weak, and data on the prognostic impact of high BNP levels in patients with sepsis are conflicting [1]. Recently, a study published in this journal reported BNP elevations in septic patients without evidence of myocardial dysfunction. BNP levels correlated with CRP levels, suggesting an inflammatory trigger for the increase in BNP [2].

We report the case of a 23-year-old previously healthy pregnant woman in whom a cesarean section was performed according to obstetric indications. From the third postoperative day, she presented fever up to 38.5 °C with chills, mild tachypnea, and abdominal tenderness. Laboratory findings were remarkable for leukocytosis with type shift (WBC: 28,000/μl with 88% poly), hematocrit 24% with Hgb 7.9 g/dl, CRP 17.3 mg/l, and mild metabolic acidosis in blood gas examination. Renal function was normal. A multiple antibiotic regimen was initiated. On the sixth postoperative day, she was referred for evaluation to the cardiology department because of mild dyspnea. The patient was hemodynamically stable. Her ECG was normal while chest X-ray revealed bilateral blunting of the pleurodiaphragmatic junctions. There was a marked elevation in BNP levels (953 pg/ml), whereas cardiac troponin-I levels were within normal limits. An echocardiographic study