



Vitamin B12 deficiency: A rare cause of Roth spot

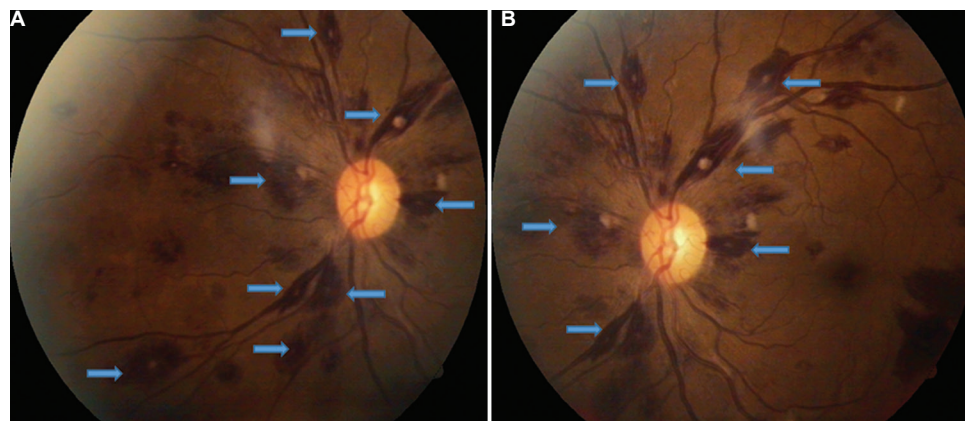


Figure. (A) Left eye showing Roth spots (arrows) and (B) right eye showing Roth spots (arrows).

A 42 yr old chronic alcoholic male[†] presented to the department of Medicine, Sri Devaraj Urs Medical College, Kolar, Karnataka, India, in August 2017, with a history of fatigability and diminished vision. He was severely pale, and investigation revealed pancytopenia (haemoglobin – 4.40 g%, white blood cell – 387,000/ μ l, platelet – 43,000/ μ l, mean corpuscular volume – 116.10 fl and mean corpuscular haemoglobin – 39.30 pg). Peripheral smear showed macrocytic anaemia. Fundoscopy showed multiple, well-defined, oval-shaped haemorrhages with white centre (Roth spot) bilaterally (Figure A and B). Serum vitamin B12 was low (141 pg/ml). Blood cultures and echocardiography were normal, thus the patient was diagnosed to have vitamin B12 deficiency.

He was transfused on pint packed cell volume and treated with injection vitamin B12 + folic acid

along with abstinence from alcohol. His vision and haemoglobin gradually normalized, and repeat fundoscopy at three months was normal.

Roth spots are pathognomonic of bacterial endocarditis and in our case, the fundus was clinically indistinguishable from it. Roth spots are a rare manifestation of B12 deficiency and are reversible with timely diagnosis and subsequent therapy.

Conflicts of Interest: None.

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[†]Patient's consent obtained to publish clinical information and images.