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Vitamin A deficiency in New York City

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A 24-year-old, 26 weeks pregnant woman from New York City presented with a 7-week history of progressive loss of vision, most notable at night. Numerous Bitot spots (figure A) and keratitis (figure B) were seen on examination of her eyes; however, her retina was grossly normal (figure C, D). Electroretinography showed a generalised rod-cone dysfunction, and fundus autofluorescence showed faint retinal vasculature in her right eye (figure E) and a black image in the left eye. Autofluorescence from the left eye of an age-match control is shown (figure F). Acquired vitamin A deficiency was confirmed by a serum concentration of <0.002 $\mu\text{mol/L}$ (normal range 0.70 – 2.8 $\mu\text{mol/L}$). Her vision and the appearance of her anterior segment returned to normal with vitamin A supplementation. Vitamin A deficiency can be secondary to poor intestinal absorption due to bariatric surgery, Crohn's disease or pancreatic dysfunction. Our patient had anorexia nervosa and had limited her diet to white onions, white potatoes, and red meat for the past 7 years. A steal effect from her fetus could have also contributed to her symptoms.

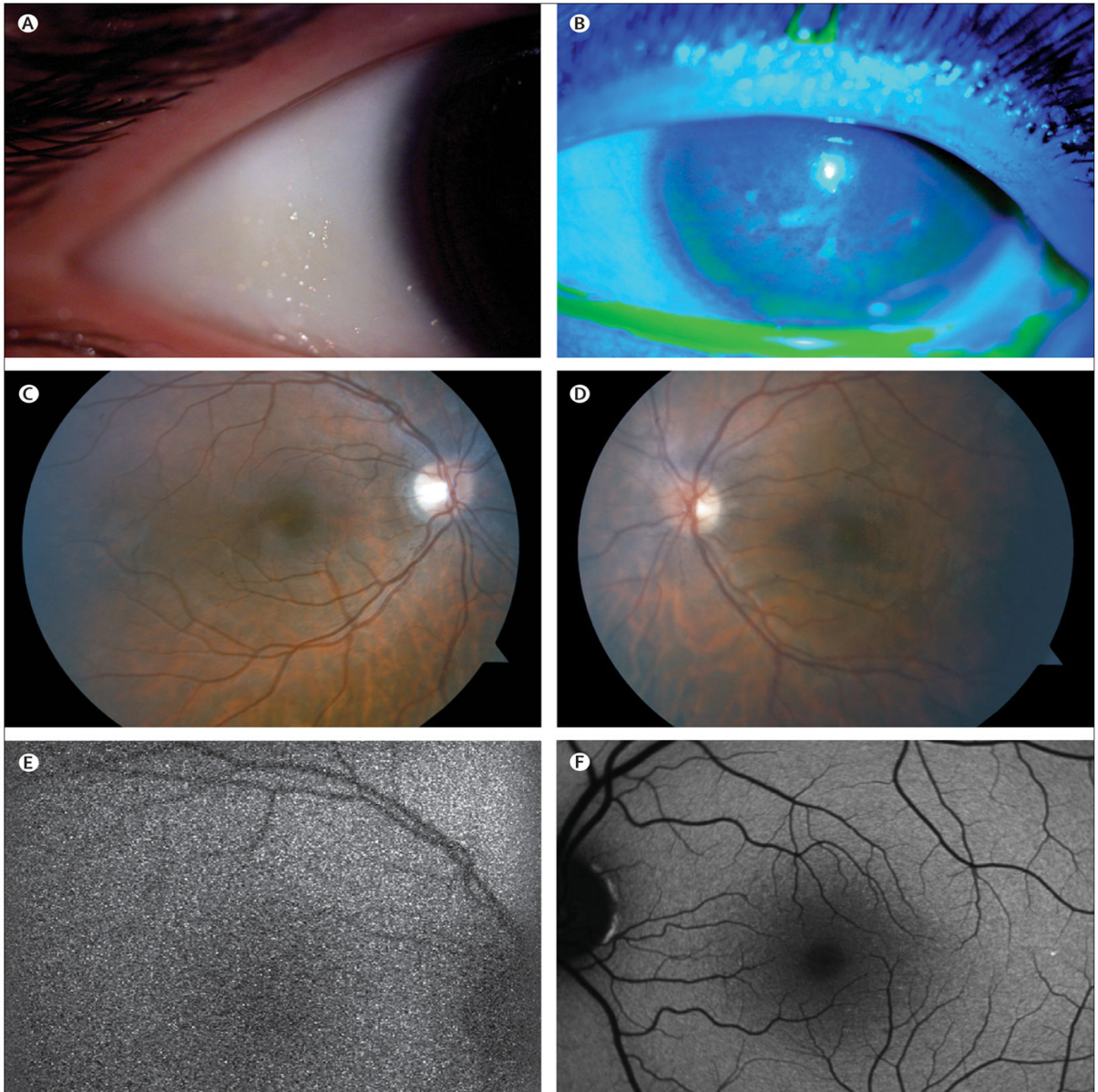


Figure.
Ocular signs of vitamin A deficiency