Figure 1: Photograph of the hands of a 40-year-old woman showing orange discolouration of the palms caused by lycopenemia.

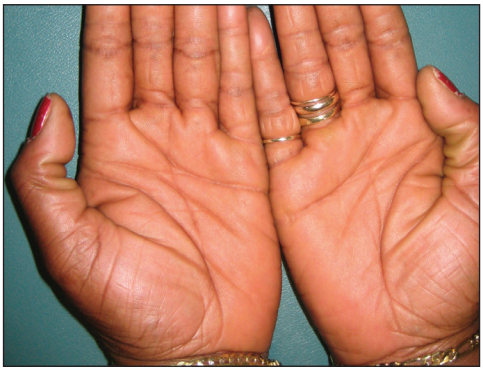

Figure 2: The discolouration has resolved in this photograph taken 4 weeks after the patient reduced her intake of tomatoes.

Orange discoloration of the palms

A 40-year-old woman presented with orange discoloration of both palms (Figure 1) that had begun several days earlier. The rest of her skin, her sclera and other mucous membranes were normally coloured. She had no history of anorexia. The patient reported having no nausea, vomiting, abdominal pain or change in the colour of her urine or stool. She had eaten tomatoes and tomato-based dishes roughly 5 times per week for the last 3 years, totalling on average 3–4 pounds (1.4–1.8 kg) of tomatoes weekly. She had not taken multivitamins or energy drinks.

The levels of her liver enzymes, thyroid-stimulating hormone, α-carotene, β-carotene, lutein, zeaxanthin and vitamin A were normal. The discoloration was diagnosed as lycopenemia. The patient was advised to reduce her tomato intake to 1–2 pounds (0.5–0.9 kg) per week. At a follow-up examination 2 weeks later, the discoloration had faded, and by 4 weeks it had completely disappeared (Figure 2).

Lycopenemia is a benign clinical entity characterized by yellowish orange pigmentation of the skin. It is caused by the deposition of lycopene. The deposits occur mainly in the stratum corneum, which has a high lipid content and hence an affinity for lycopene.[1] Lycopene is an antioxidant and a structural isomer of β-carotene. It is found chiefly in tomatoes but is also found in other reddish foods such as rosehips, beets and chili beans.[2] Related benign conditions include hypercarotenemia and riboflavinemia. In most cases, lycopenemia can be diagnosed on the basis of dietary history. Simple changes in diet bring complete resolution of the symptoms. Occasionally, specific tests are indicated to rule out hyperbilirubinemia or exposure to toxic levels of quinacrine or fluorescein.

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