

**Vui Heng CHONG**



This 55-year-old lady presented with increasing lethargy, abdominal distension and leg oedema. She had a history of blood transfusion thirty year ago when she after delivering her first child through caesarean section. Examination revealed several abnormalities, one of which is shown (**Panel**).

**What is the diagnosis?**

**Answer:** refer to page 121

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**(Refer to page 93)**

**Answer: Palmer erythema**

Palmer erythema is reddening of the palms of the hands, in particular the thenar and hypothenar. Reddening can also be seen at the bases of the digits. Changes seen in the palm can also occur on soles of feet. Well known associations of palmer erythema includes chronic liver disease and pregnancy.

Palmer erythema can be primary or secondary. Primary (physiologic) palmer erythema can be heredity, associated with pregnancy state (~ 30% of pregnant women secondary to alterations in the function of the skin and microvasculature of the skin) or idiopathic.<sup>1</sup> Secondary palmer erythema is due to a wide range of disease states; chronic liver disease (typically with advanced fibrosis or cirrhosis; ~23%), rheumatoid arthritis (in up to 60% and is reported to be associated with favourable prognoses), thyrotoxicosis (up to 18%) and even diabetes mellitus (~4.1%). Many infections have been reported to manifest palmer erythema as part of the many manifestations. Other causes include early gestational syphilis, human T-lymphotrophic virus-1-associated myelopathy, neoplasms (especially with metastatic disease)<sup>2</sup>, dermatoses (psoriasis and ecze-

ma), polycythaemia, and drug-induced (hepatic damage; amiodarone, gemfibrozil, and cholestyramine, and with normal liver function; topiramate and salbutamol). Smoking and chronic mercury poisoning have also been reported to cause palmer erythema.<sup>1</sup>

The underlying pathogenesis is not clearly known, but is believed to be associated with increased level of oestrodiol which is seen in pregnancy and chronic liver disease. Increased level of angiogenic factors has also been postulated. Changes observed in skin biopsies include capillary dilatations. Interestingly, one study looking at brain tumours showed that the intensity of palmar redness correlated to the increase in these vascular changes in the histopathological slices of brain tumors and the effect of angiogenic factors was postulated.<sup>2</sup>

There is no specific treatment for palmer erythema. However, it is important to assess for any associated conditions. Treatment of underlying conditions, if reversed may lead to resolution of the condition. This reported patient has liver cirrhosis and even with treatment, the palmer erythema is very unlikely to resolve.

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- 3: Satapathy SK, Bernstein D. Dermatologic disorders and the liver. *Clin Liver Dis.* 2011; 15:165-82.