

*Images in Nephrology*  
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## Cutaneous horn at the puncture site of arteriovenous fistula in a haemodialysis patient

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A 53-year-old woman with end-stage kidney failure from IgA nephropathy has been treated with haemodialysis for 14 years via the left forearm arteriovenous fistula (AVF). In August 2007, she developed an area of skin necrosis at the puncture site of AVF that was soon covered with a callus-like wrap. The puncture site was removed distally. In January 2008, a horn-like structure started to grow from the affected skin (Figure 1). Dimensions of the structure were 2.5 × 1.0 × 0.5 cm. The horn was removed in May 2008, during the surgical extirpation of AVF. Pathohistological finding demonstrated necrotic skin areas embedded by blood with partially preserved epidermis and signs of hyperkeratosis and parakeratosis. Arteriovenous fistula was constructed on the right forearm, and the patient continued with regular dialysis.

To our knowledge, this is the first case of cutaneous horn in a haemodialysis patient. The horn resulted from hyperkeratosis, a physiological response of the skin to chronic extensive mechanical stress (repetitive AVF punctures). Although considered as benign lesions, cutaneous horns may evolve from neoplastic skin changes. A histopathological study of cutaneous horns demonstrated that almost 40% of these lesions may show (pre)malignant base pathology [1].



**Fig. 1.** A horn-like structure at the site of arteriovenous fistula puncture.

Our case demonstrates that the long-term punctures at the same site of AVF should be avoided. Malignant skin process should be excluded.

*Conflict of interest statement.* None declared.

### Reference

1. Yu RC, Pryce DW, Macfarlane AW, Stewart TW. A histopathological study of 643 cutaneous horns. *Br J Dermatol* 1991; 124: 449–452

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