



Fig. S2. Histopathology and immunohistochemistry sections from Case 1. (A) Haematoxylin and eosin (H&E). Papillomatous proliferation with atypical keratinocytes occupying the entire thickness of the epidermis. *Inset*: confocal image at the dermo-epidermal junction (DEJ) revealing bright atypical keratinocytes surrounding the papillae. (B) p16 showing strong and diffuse immunoreactivity. (C) Melan-A exhibiting normal population of melanocytes, in contrast to what is seen in confocal microscopy (*inset*), where the epidermis is showing a large population of dendritic cells. (D) CD1a revealing an increased number of Langerhans cells. (Original magnification  $\times 100$ ).