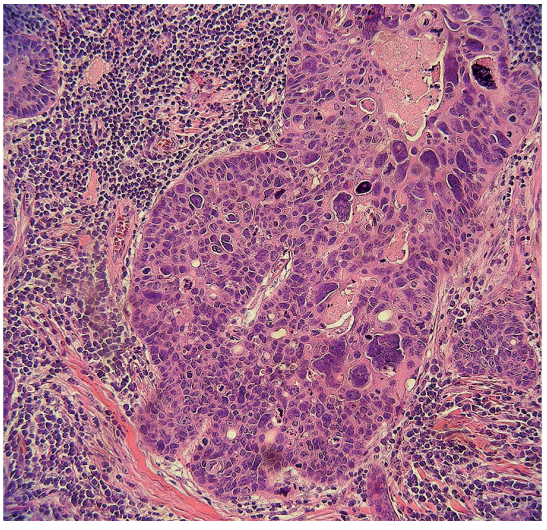

Fig. S1. Atypical keratinocytes proliferation with clumping cells and dyskeratotic cells in the dermis (H.E. staining × 200).

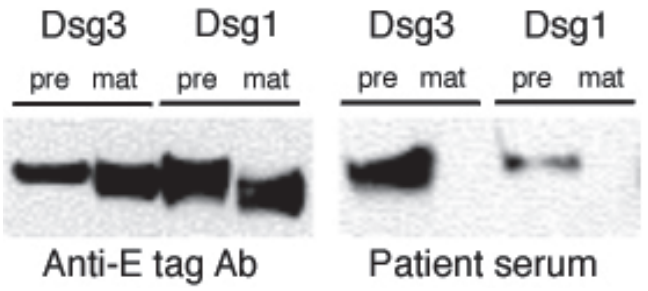

Fig. S2. The results of immunoprecipitation-immunoblotting using recombinant proteins (RPs) of precursor and mature forms of Dsg1 and Dsg3. Left panel: Loading control of each RP detected by anti-E tag mAb. Right panel: The patient serum reacted with RPs of precursor forms (pre), but not mature forms (mat), of Dsg1 and Dsg3. Reactivity of Dsg3 was stronger than that of Dsg1.

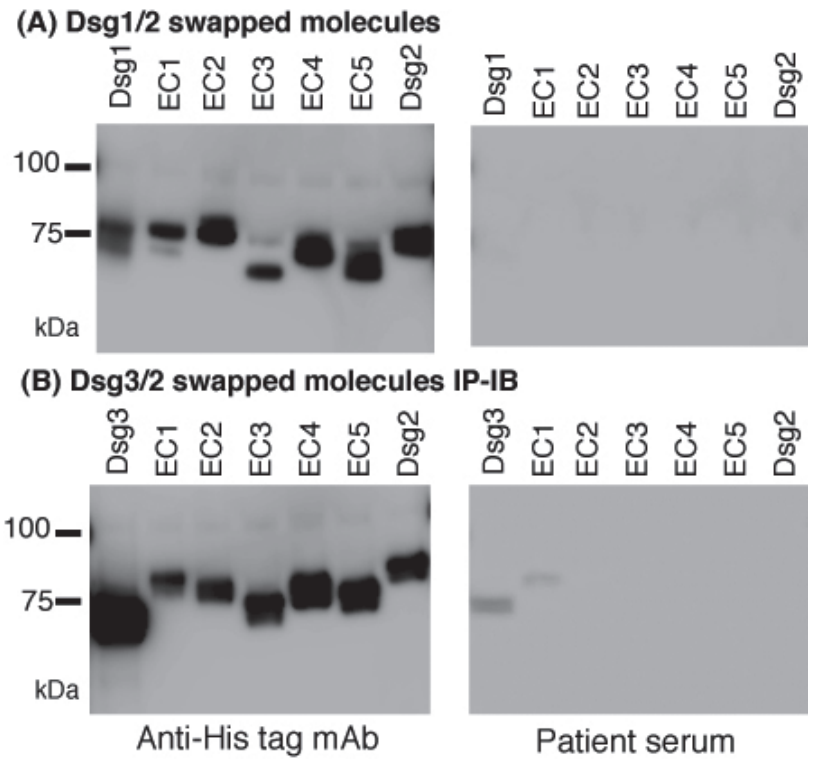

Fig. S3. The results of immunoprecipitation-immunoblotting using swapped molecules of desmoglein (Dsg)1/Dsg2 and Dsg3/Dsg2 studies for RPs of Dsg1 and Dsg3. The left panels showed positive reactivity with each recombinant protein by immunoblotting using anti-His tag mAb. The lanes of Dsg1, Dsg3 and Dsg2 are for full-length RPs of Dsg1, Dsg3 and Dsg2, respectively. The lanes of extracellular (EC)1–EC5 are for domain swapped RPs. (A) The patient serum did not react with any RPs of Dsg1, including full length RP. (B) The patient serum reacted with RPs of both full-length RP and EC1 domain containing RP of Dsg3.

Table SI. *The effects of EDTA treatment of anti-desmoglein (Dsg) antibody titres in the patient sera before and two months after tumour resection*

	Anti-Dsg1 antibody titre		Anti-Dsg3 antibody titre	
Patient's sera	EDTA (–)	EDTA (+)	EDTA (–)	EDTA (+)
EDTA treatment				
Before resection	362.6	378.9	67.7	75.8
After resection	385.1	397.5	69.8	76.6