

## PAGET'S DISEASE OF BONE AND THE SKULL OF EGIL SKALLAGRIMSSON

Sir,

The evidence for the legendary Viking, Egil Skallagrimsson, having Paget's disease of bone is highly convincing.<sup>1,2,3</sup> However Paget's can manifest in a variety of forms, and the description of Skapti Thorarinsson's attempt to crack Egil's skull gives us further clues about the extent of disease.

The illness progresses through various stages of activity. It starts with an intense osteoclastic activity with bone trabeculae destruction. The osteolytic phase is termed 'osteoporosis circumscripta' in the cranial vault and is seen most frequently in frontal or occipital region. Clearly a skull of this type would have shattered instantly with the blow of a hammer. The disease progresses to a mixed pattern with multifocal sclerotic patches in the intermediate stage.

Sclerosis initially affects the inner table and only in the most advanced cases do all layers of the skull become sclerosed.<sup>4</sup> If Egil's skull 'neither broke nor dented on impact' as Skapti Thorarinsson described,<sup>1</sup> then this suggests that he had the most severe form of Paget's.

## REFERENCES

1 Buchanan WW. Did the tenth-century Viking Egil Skallagrimsson (c. AD 910–990) have Paget's disease? *J R Coll Physicians Edinb* 2004; 34:244–6.

However, Byock,<sup>2</sup> who also cites Skapti Thorarinsson, later goes on to state that 'the soft pumice-like outer material of the enlarged Pagetic skull gives way to a white hardened, highly resilient core'. This description is more in keeping with disease limited to the inner table.

Hardarson and Snorraddottir believed that Egil's symptoms and signs (blindness, deafness, feebleness, tendency to fall, the much larger than average bones, and the extraordinary and massive skull) matched those of Paget's disease of bone, but use the description of the skull of Egil as 'ridged all over like a scallop shell' as the strongest evidence for the diagnosis of the disease.<sup>3</sup> These authors, interestingly, make no reference to the Byock's piece published a year earlier.

Egil's illness, and especially his corrugated skull, is possibly the oldest recorded description of Paget's disease of bone.

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2 Byock JL. Egil's bones. *Sci Am* 1995; 272:82–7.

3 Hardarson T, Snorraddottir E. Egil's or Paget's disease? *BMJ* 1996; 313:1613–14.

4 Kanis JA. *Pathophysiology and treatment of Paget's disease of bone* 2nd edn. London: Martin Dunitz; 1998.