

PROBLEMÁTICA IV

What is this?

A new trait found on infant skulls?

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In a Hispano-Muslim medieval population from Maqbara San Nicolás (Murcia, Spain; XIth-XIIIth Centuries) a new characteristic has been found not described in the paleopathological literature. The external surface of the infant pars basilaris of the occipital bone shows a porosity area. This characteristic is found in children of different ages from the same archaeological site.

Figure 1 shows a symmetrical pattern that suggests the impossibility of a taphonomic origin. This trait is similar to other porotic areas found on different bones from infant skulls.

Radiographic analyses show that the cranial bases of the affected individuals display a density pattern less homogeneous than non affected ones. There is not a clear relationship between the degree of visual patterns and their radiographic images.

The similarity with other hyperostotic porosity lesions suggests the same possible origins: rickets, genetics and hypoferremic anemias, policitemia vera, congenital haemolytic anaemias and infections -

hookworms (Steinbock, 1976). This last hypothesis is supported by the urban life style of this population.

At least two different degrees in the development of this bone trait can be identified. Figure 2 shows a normal cranial base (centre), a highly affected -cribotic stage- (left) and a moderately affected -pitting stage- (right).

In this population a high prevalence of other stress indicators -cribra orbitalia and linear enamel hypoplasia- has been found for children between 0 and 6 years (Robles & *al.*, 1995). The aetiology is difficult to determine, although an origin related to genetic anemias is a possibility because of the closeness of damp areas. Despite the richness of agriculture of the area, nutritional deprivation is an other possibility because the population suffered long periods of scarcity due to sieges and other military practices.

The main question now is establishing whether this characteristic is an ordinary pattern in cranial base development or a pathological condition.

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Figure 1.

Acknowledgements.

We would like to thank Patricia Stuart-Macadam, Don Brothwell, Domingo Campillo, Mark N. Cohen, Santiago Vilá and Phillip L. Walker for their interpretation of this characteristic.

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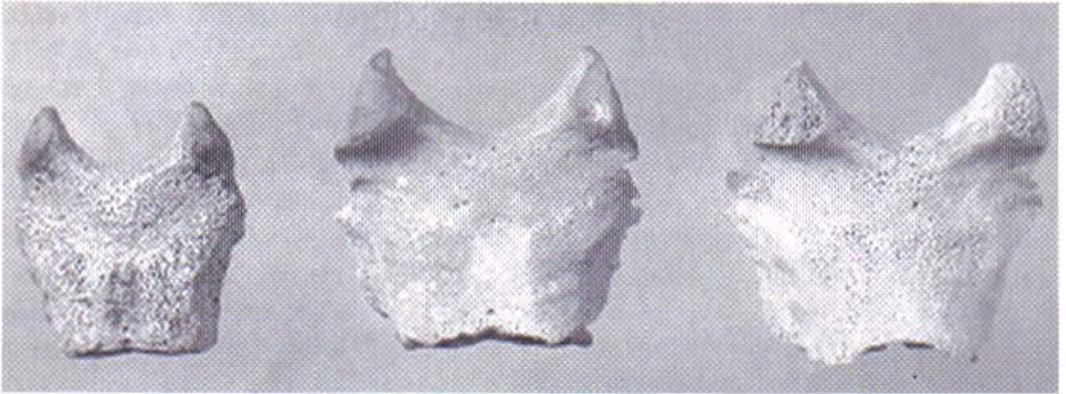


Figure 2.