

## Anatomical variations in ancient sardinian populations

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Archaeological excavations carried out in different burial sites of north-western Sardinia allowed to observe anatomical variations in ancient skeletal remains. A case of brachymetatarsia, consisting of bilateral abnormal shortness of the fourth metatarsal bone, was detected in an adult female uncovered from the Medieval village of Geridu (Sassari), dated back to the late 13<sup>th</sup> or the first half of the 14<sup>th</sup> century; such a rare deformity has a clinical incidence of 0.02% to 0.05% (1).

Several anatomical variations were diagnosed in individuals brought to light from the plague cemetery of 16<sup>th</sup> century Alghero (Sassari). The skeleton of a 9-10-year-old child showed a skull malformation due to premature bilateral closure of the coronal suture, diagnosed as non-syndromic brachycephaly (2). Posterior schisis of the first cervical vertebra, consisting of failure of the midline fusion of the two hemiarches with a small gap, was seen in a male aged 20-30 years; this type of anomaly has a current occurrence of approximately 4%. Occipitalization of the atlas associated with posterior spondylolysis was observed in a male aged 35-45 years. There is complete fusion of the superior articular facets of the first cervical vertebra with the occipital condyles; this congenital anomaly has a current incidence of 0.14 to 0.75% of the population.

The small number of published osteoarchaeological cases of anatomical variations makes any report important.

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### References

- [1] Giuffra et al., (2014) A case of Brachymetatarsia from Medieval Sardinia (Italy), *Anat Rec* 297: 650-652.
- [2] Giuffra et al., (2013) A probable case of non-syndromic brachycephaly from 16<sup>th</sup> century Sardinia (Italy), *Int J Paleopath* 3: 134-137.

### Keywords

Osteoarchaeology; brachymetatarsia; brachycephaly; posterior arch defect of the atlas; occipitalization of the atlas.