

Multiple Wormian bones at the lambdoid suture in an Indian skull

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Melaka Manipal Medical College (Manipal Campus), International Centre for Health Sciences, Madhav Nagar, Manipal, Udupi District, Karnataka State, INDIA.



⁺ Satheesha Nayak B.
Associate Professor of Anatomy
Melaka Manipal Medical College (Manipal Campus)
International Centre for Health Sciences
Madhav Nagar, Manipal
Udupi District, Karnataka State, 576 104 INDIA.
☎ +91 820 2822519
✉ +91 820 2571905
✉ nayaksathish@yahoo.com

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ABSTRACT

The occurrence of Wormian (sutural) bones in the human skull is quite common. We found ten Wormian bones in the lambdoid suture in an adult Indian skull. Knowledge of this variation is very important for anthropologists, radiologists, orthopedic and neurosurgeons. A similar case has not been reported yet. © *Neuroanatomy*. 2008; 7: 52–53.

Key words [skull] [Wormian bone] [lambdoid suture] [variation]

Introduction

The ‘Wormian bones’ or ‘sutural bones’ are small bones found at the sutures of the skull. They are unnamed bones because they vary from person to person in number and shape. They are commonly found in relation to the frontal and occipital bones. It is important to know about these bones because they can mislead in the diagnosis of fracture of skull bones. We saw a series of sutural bones in the lambdoid suture.

Case Report

During the routine osteology demonstration classes for medical undergraduate students, we found a series of Wormian bones in the lambdoid suture (Figure 1). These bones were found in an adult Indian skull. All together there were ten sutural bones. The largest among them was at the lambda and the size of rest of the bones reduced progressively from lambda to asterion. Six bones were on the left side of lambda and the rest were on the right side. They were irregular in shape. The sagittal suture was very wavy. There were no other notable abnormalities in the skull.

Discussion

Wormian bones (sutural bones) are very common in the skull. According to Bergman et al. [1], nearly 40% of skulls contain sutural bones in the vicinity of the lambdoid suture. The next most common sutural bone is the epipteric bone (pterion ossicle) found near the former anterolateral fontanelle. The occurrence of

preinterparietal bone or inca bone at the lambda has been reported by previous workers [1–4]. Studies [5,6] have shown that the presence of sutural bones is associated with other cranial and central nervous system abnormalities. Jeanty et al., [7] have reported the presence of wormian bones in four fetuses. But in these cases there were no associated anomalies. Tewari et al., [8] studied 1500 skulls for the presence of sutural bones. They have found the preinterparietal bone in 6 (0.4%) cases. El-Najjar and

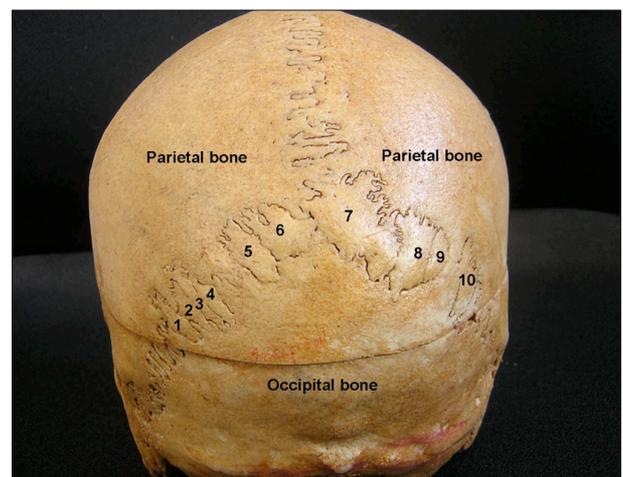


Figure 1. The posterior view of the skull showing ten sutural bones. Color version of figure is available online.

Dawson [9] are of the opinion that the occurrence of the wormian bones is controlled by the genetic factor. The knowledge of Wormian bones is clinically important. The presence of series of wormian bones like this may

lead to problems in posterior approach to the cranial cavity. These bones might lead to confusions in reading the radiographs in the case of head injuries. The Wormian bones like this may be mistaken for multiple fractures.

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