

Leprosy or syphilis – a differential diagnostic paleopathological problem

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In Russia in 1898 the Hungarian famous researcher János Jankó, collected much anthropological and ethnographical material from the Chanti population, who lived by the Middle-Ob river and its tributaries. He studied the living population, and also collected 30 skulls from 18-19th century cemeteries and brought them to Hungary, 27 of which are at the Department of Anthropology, Natural History Museum, Budapest. In 1950 Pál Lipták published the anthropological study of the skulls without pathological alterations. This year the pathological analyses was carried out and five skulls showed changes, based on gross morphology and X-ray.

The pathological changes involve the frontal, nasal regions and the cranial vault (scars of the nasal and the frontal bones; irregular crater depression on the frontal bone; destructive remodeling of the piriform aperture; partially atrophied apex of the nasal bone; porosity with traces of vessel-grooves on the cranial vault). Based on these changes, a provisional diagnosis of fronto-nasal syphilis was made. However, the morphological changes on three skulls could also indicate leprosy. In two of the three cases the nasal region shows destructive changes, and in the other there is slight destruction of the nasal frontal bone. To distinguish between these diagnoses, material from the three skulls was examined for *Mycobacterium leprae* DNA using PCR for the RLEP target region. The results were negative in repeated DNA extractions. It is possible that the DNA preservation was poor. The alternative conclusion is that syphilis was the etiological agent that caused the pathological changes in these three skulls.