

## DISSERTATION SUMMARY

# Paleopathological investigations of the skeletal material of Szeged-Vár, Hungary

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Paleopathology is a special field of historical anthropology. Its main object is investigating of diseases, which past human populations suffered from. Paleopathology can be divided into several different categories depending on the aetiology of illnesses (Aufderheide and Rodríguez-Martín 1998).

One of the most important fields of paleopathology is the investigation of specific infectious diseases because they appeared as selective factors in past human population. We can only recognise those which can also produce osteological symptoms. Such infections are TB, leprosy and syphilis.

The aim of this study is to introduce some diseases observed on the skeletons from the cemetery of the gothic church built in the 14<sup>th</sup> century next to the castle of Szeged. The burial place was first used until 1543, then after the period of the Turkish occupation until 1713.

439 graves and several objects have been recovered till now, but the excavations are still going on. To collect paleopathological traits, macroscopic-morphologic and stereomicroscopic observation and X-ray analysis have been carried out. In two cases radiocarbon dating was also performed.

After determination of sex and age, we could establish that the sex ratio was 1:1, and the percentage of juveniles (under the age of 18) to adults was 41% to 59% in our material

Many of the skeletons showed different forms of paleopathological alterations, mostly minor developmental anomalies and joint diseases. Probably the most common pathological disorder was degenerative arthritis but there were other diseases related to joints like diffuse idiopathic skeletal hyperostosis (DISH) caused by abnormal function of the metabolic system (Aufderheide and Rodríguez-Martín 1998).

There were only few skeletal evidences of trauma; we could identify mostly healed fractures (on the ribs and upper limbs). In one case we also observed an unusual skull fracture, which might have been caused by a sword cut injury (Ósz et al. 2005).

We could find some diseases related to metabolic and haematological disorders. Such symptoms were porotic hyperostosis (cribra orbitalia and cribra cranii) sometimes

caused probably by vitamin C deficiency and sometimes connected to other illnesses like syphilis.

We could notice traces of several non-specific infections like periostitis and endocranial pattern and also – in one case – osteomyelitis.

The remains of four individuals showed serious bone lesions related to the osteological symptoms of treponematoses and even acquired syphilis (Hajnal et al. 2004; Ósz et al. 2005). On the skull of two adult skeletons the different stages of caries sicca (Hackett 1976) could be detected. The postcranial skeletons were also affected; cortical thickening and periosteal new bone formation were observable as well.

Each remain could be dated to the late Middle Ages on the basis of the archeological finds and observations. In one case the radiocarbon dating suggested pre-columbian origin. At that time Szeged was a merchant city and a very important port of the southern part of Hungary.

This could explain the early appearance and the relatively high prevalence of syphilis at the site (Ósz et al. 2006).

The low frequency of fractures and of other serious illnesses suggested that the main population of the castle and its surroundings were rather citizens than soldiers and they must have been in good nutritional and social condition.

## References

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