

FURTHER TREPHINED SKULLS IN HUNGARY (CASE-HISTORY)

GY. FARKAS and A. MARCSIK

(Received: october 10, 1985)

Abstract

The main reason for trephination appears to be the treating of wounds but it was designed to cure mental disorders, too. The other reason was a ritualistic: a post-mortem removal of circular pieces of skull. The majority of trephined skulls from our collection is published and in this paper we present only some further trephined skulls.

Key-words: traumatic lesion, trephined skull, surgical and cultical trephination

Introduction

From paleopathological point of view the trephination represents the traumatic lesion, as a bone wound in the skull caused by sharp instrument (STEINBOCK, 1976; ORTNER and PUTSCHAR, 1981; PERROT, 1982).

Trephination (otherwise known as trepanning) is a practice known since very early times. The first example was identified by BROCA in 1867, in a Peruvian skull (HART, 1983).

Trephined crania have been in many parts of the world (the ancient examples of trephination number are well over 1000) but the greatest number occurs in two areas: Europe and South America (DERUMS, 1979; OAKLEY et al. 1959; PIGGOTT, 1940).

The main reason for trephination appears to be the treating of wounds (in association with skull fracture), although it was designed to cure epilepsy, madness, convulsions, mental disorders, too. In these cases the trephination was a surgical procedure to correct some serious medical problems therefore they removed a portion of the skull (PIGOTT, 1940).

The other reason for the trephination was ritualistic, a post-mortem removal of circular pieces of skull; this view is supported the fact that amulets were prepared from discs of human skulls. This is the case of cultical trephination.

In the paleoanthropological material the question arises if the cutting was done before or after death. That is, whether we confronted with the product of a surgical procedure or with a result of some post-mortem ritual (cultical trephination). If signs of healing are present, the cutting is a result of a surgical trephination. It is possible,

however, that the patient died during the operation or soon after it. In this case the surgical trephination can't be distinguished from post-mortem ritual removal (cultural trephination).

The third type of trephination is the so called symbolic one which is characteristic among Hungarian tribes in the 10th century. They did not remove a portion of the skull, only scratched the *tabula externa*. We cannot know the exact reason or at least a ritualistic reason for the operation.

Case-history

The majority of trephined skulls from our collection (Attila József University, Szeged) is published (BARTUCZ, 1966; FARKAS, 1975; LIPTÁK, 1968; LIPTÁK and MARCSIK, 1971).

Further trephined skulls are the following:

1. Biharkeresztes-Ártánd-Nagyfarkasdomb (4th century, grave 43, female, Adultus)

The intervention was made slantly in circular form (5x5 cm) in the occipital region. The specimen survived, the edge of the cutting is very smooth. The operation of this case could be done over the *sutura lambdoidea* (Fig.1).

2. Sárrétudvar (10th century, grave 179, male, Maturus)

The form of cutting is „plum“-like, the larger diameter is 2.5 cm and the smaller one is 1.5 cm in the frontal region. The cutting was askew. We think that the hole

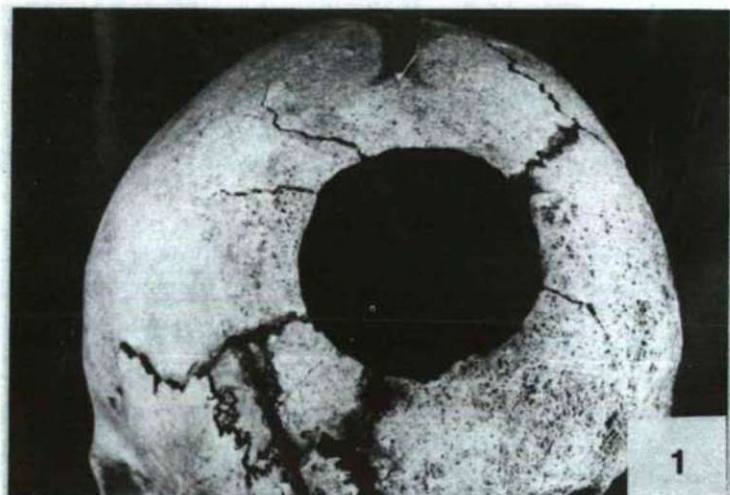


Fig. 1: Biharkeresztes-Ártánd-Nagyfarkasdomb (4th century, grave 43, female, Adultus) surgical trephination

is a result of a mechanical intervention but the trace of rodent's teeth can also be seen everywhere. We cannot know that the specimen survived the operation or not (Fig.2).

3. Kiskőrös Város alatt (Avar period, grave 161, Juvenile, female) (Fig.3).
4. Kiskőrös Város alatt (Avar period, grave 183, male, Adultus) (Fig.4).

The last two skulls show a circular hole in the occipital region (diameter is 1 cm). They were found in the same cemetery, the intervention seems to be the same taking place in steep direction. No reaction is present on the edges. This kind of ephination can't be distinguished from post-mortem ritual removal (cultical trephination) in archaeological material. We suppose that these skulls represent cases of the cultic trephination (the holes are very small and they are in an unusual region) but this cannot certainly be proved.

In all four cases the intervention may have been preformed with the aid of a sharp instrument.



Fig. 2 : Sárrétudvar (10th century, grave 179, male, Maturus) surgical trephination



Fig. 3 : Kiskőrös Város alatt
(Avar period, grave 161, Juvenile, female) cultural trephination?



Fig. 4 : Kiskőrös Város alatt
(Avar period, grave 183, male, Adultus) cultural trephination?

References

- BARTUCZ, L. (1966): A praeistorikus trepanáció és orvostörténeti vonatkozású sirleletek (The prehistoric trephination and the findings related to the medical history). — *Paleopathologia III. Az Orsz.Orv.tört.Könyvt.Kiadv. Budapest.* 612 pp.
- DERUMS, V. J. (1979): Extensive trepanation of the skull in ancient Latvia. — *Bull.Hist.Med.* 53, 459–464.
- FARKAS, GY. (1975): A Délalföld őskorának paleoantropológiája (Paleoanthropology of prehistoric time from the South Hungarian Plain). — *Kand.ért. tézisei.* 14 pp.
- HART, G. D. (ed.) (1983): Disease in ancient man. Papers delivered at the Internat. Symp. on Disease in Ancient Man held in London, 1979. — Clarke Irwin Toronto, Canada. 297 pp.
- LIPTÁK, P. (1968): A Nádudvar-törökklaponyagi X–XI. századi temető antropológiai vizsgálata (Recherches anthropologiques sur les ossements de la cimetière Nádudvar-Törökklaponyag des 10–11. siècles). — *Déri Múzeum Évkönyve.* 179–195.
- LIPTÁK, P. and MARCSIK, A. (1971): Anthropological investigation of the cemeteries from the 10th a 11th centuries excavated at Szarvas. — *Acta Biol.Szeged.* 16, 207–221.
- OAKLEY, K. P., BROCKE, W. M. A., AKESTER, A. R. and BROTHWELL, D. R. (1959): Contributions on trepanning or trephination in Ancient and Modern Times. — *Man.* 59, 93–96.
- ORTNER, D. and PUTSCHAR, W. G. J. (1981): Identification of Pathological Conditions in Human Skeletal Remains. — *Smithsonian Contributions to Anthropology.* 28. Washington. 1981. 479 pp.
- PERROT, R. (1982): Les blessures et leur traitement au Moyen-Âge d'après les textes médicaux anciens et les vestiges osseux (Grande région Lyonnaise). — These présentée pour obtenir le grade de docteur d'état en Biologie Humaine. 983 pp.
- PIGGOTT, S. (1940): A Trepanned Skull of the Beaker Period from Dorset and the Practice of Trepanning in Prehistoric Europe. — *Proc. prehist.Soc.* 6, 112–133.
- STEINBOCK, R. T. (1976): Paleopathological diagnose and interpretation. Bone diseases in ancient human populations. — Charles C. Thomas, Springfield, Illinois, USA. 423 pp.

Address of the authors:

GY. FARKAS
A. MARCSIK
Department of Anthropology
Attila József University
H-6701 Szeged,
P.O. Box 660
Hungary