MORPHOMETRIC ANALYSIS OF THE EMISSARY FORAMENS OF THE SKULL

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ABSTRACT

Background: Emissary foramen of 20 unsexed skulls are studied randomly to know the variation in the pattern of their appearance. The study was important as knowledge of the emissary foramen is helpful during surgical process.

INTRODUCTION

The emissary foramen of the skull are minute holes. They allow the passage of emissary veins that connect with intracranial venous sinus with extra cranial veins of the scalp base of the skull. In the greater wings of the sphenoid bone, medial to the foramen ovale a small aperture the Sphenoid Emissary Foramen may occasionally be seen opposite to the root of the pterygoid process also know as foramen Vesalli. The Mastoid emissary foramen was observed closer to the foramen rotundum and foramen ovale. The mastoid emissary foramen was also studied in the same way by observation in the 20 skull. The mastoid foramen is present by the side of the mastoid process; it’s sometimes even present on the occipital suture. The PARIETAL EMISSAR FORAMEN was observed on the parietal part of the skull, either on left or right or in some cases even on the suture.

METHOD

The method includes randomly observation of about 20 unsexed dry skulls for the emissary foramen. The Sphenoidal emissary foramen was observed closer to the foramen rotundum and foramen ovale. The mastoid emissary foramen.

Key Words: Mastoid emissary foramen, parietal emissary foramen, sphenoid emissary foramen, vein.

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RESULT

| Sphenoidal Emissary Foramen | Only left | Only right | Both the side | Absent |
|-----------------------------|-----------|------------|---------------|-------|
|                             | 5         | 1          | 8             | 6     |

| Mastoid Emissary Foramen  | Only left | Only right | Both the side | Absent |
|---------------------------|-----------|------------|---------------|-------|
|                           | 2         | 3          | 15            | 0     |

| Parietal Emissary Foramen | Only left | Only right | Both the side | Absent | Center |
|---------------------------|-----------|------------|---------------|-------|--------|
|                           | 1         | 4          | 8             | 4     | 3      |

The emissary foramen were observed in irregular pattern in 20 unsexed dry skulls and the variation in their presence can be seen. The Sphenoidal Emissary Foramen observed had variation in the presence of the foramen. In about 5 dry skulls the foramen was present only on the left, it was present on the right for 1 skull and was not present or absent in about 6 skulls. In 8 dry skulls the foramen were on both the side of the sphenoid bone. 1 in a rare case the foramen is present by the left had three foramen in a group. The Mastoid Bone Bearing The Mastoid Emissary Foramen, among the twenty dry skulls 2 had the foramen on their left, 3 on the right and the rest 15 had the foramen on both the side. The Parietal Emissary Foramen Was Observed Exactly on the Center or on the SUTURE of the parietal bone for 3 skulls. It was absent in 4 dry skulls, present on the left for 1 among the twenty. It was on the right for 4 and on either side in about 8 dry skulls. This differentiation is due to the process of ossification.

Sphenoidal Emissary Foramen in about 25% of the skull it was on the left, 5% right, 40% on both the side. The Mastoid Emissary Foramen about in 10% of the skull it was on the left, 15% on the right, 75% on both the side. The Parietal Emissary Foramen it was on the left for 5%, right for 20%, on both the side in among 40% of the skull and in about 15% of the skull it was on the sagittal suture or on the center, so according to the data gather among the dry unsexed skulls 70% of the skull had sphenoid emissary foramen, all the skull had mastoid emissary foramen and in 80% of the skull the parietal emissary foramen was present.

The picture represents the sphenoid emissary foramen

CONCLUSION

The importance of knowing about SPHENOIDAL EMISSARY FORAMEN is that an infected thrombus from an extra cranial source may reach the cavernous sinus. The recognition of the MASTOID EMISSARY FORAMEN is important landmark that help in differentiation of species, and thus was their importance in forensic arthropology. The important significance of PARIETE FORAMEN is that it allows the passage of an emissary vein connecting the scalp vein with the superior sagittal sinus, with regard not only to drainage of the scalp, but also with the spread of infection to the sinuses of the duramater. The knowledge of the veins passing through this emissary foramen is also important for surgical purpose.

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