

A persistent Metopic Suture – Incidence and Influence on the Frontal Sinus Development (Preliminary Data)

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The relation between *metopism* and underdevelopment of the frontal sinus is controversial. This study aimed to evaluate the incidence of the metopic suture as well as to assess its influence on the frontal sinus development. The frequency of the metopic suture was investigated in a series of 1373 dry skulls from contemporary adult males. The frontal sinus development was examined into two series: a control one (n=42), and a series with preserved metopic suture (n=40). The visualization was performed via digital radiography. The statistical significance of the differences between both series was assessed using chi-square test.

The metopic suture was found in 6.85% (94 out of 1373 skulls). The incidences of uni- and bilateral aplasia of the frontal sinus were more frequent in the metopic suture series compared to the control one. The cases of uni- and bilateral hypoplasia were commensurable in both series. A frontal sinus hyperplasia was observed only in the control. The differences between both series were significant at $p < 0.01$. The frontal sinus underdevelopment in the metopic suture series was exclusively expressed on the right side. Generally, the metopic suture seems to exert a repressive influence on the frontal sinus development. Thus, the metopic suture is not a certain indicator, but is a prerequisite for an underdeveloped frontal sinus.

Key words: metopic suture; frontal sinus; dry skulls.