Perbedaan posisi osikular dan volume telinga tengah pada mikrotia dibandingkan telinga normal berdasarkan HRCT tulang temporal = Differences of ossicular position and middle ear volume in microtia in comparison with normal ear using temporal bone HRCT

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Abstrak

Latar belakang dan tujuan: Mikrotia adalah malformasi kongenital yang seringkali disertai atresia auris dan kelainan telinga tengah. Kelainan ini dikoreksi dengan kanaloplasti dan timpanoplasti. Titik dan arah pengeboran kanaloplasti merupakan hal yang penting. Saat ini belum terdapat panduan yang objektif dalam menentukan arah pengeboran. Volume telinga tengah, berperan penting dalam penentuan keluaran hasil pembedahan, namun saat ini belum pernah dikaitkan dengan sudut dan . Penelitian ini bertujuan menilai hubungan sudut dan dengan volume telinga tengah tmikrotia dan telinga normal menggunakan HRCT temporal.
Metode: Menggunakan desain potong lintang. Subjek penelitian merupakan data sekunder HRCT tulang temporal, kemudian dilakukan pengukuran sudut dan dan volume telinga tengah.
Hasil: Subjek penelitian berjumlah 34 sampel. Terdapat perbedaan bermakna sudut dan sudut telinga mikrotia dibandingkan telinga normal, dengan nilai p<0.001. Rerata volume telinga tengah mikrotia 0.36 cc, normal 0.67 cc. Tidak didapatkan korelasi volume telinga tengah dengan sudut dan , pada mikrotia maupun telinga normal. Nilai cut-off sudut sebesar 15.40, sensitivitas 85.3% dan spesifisitas 82.4%. nilai cut-off sudut sebesar 270, sensitivitas 73.5% dan spesifisitas 76.5%.
Kesimpulan: Perbedaan posisi osikular dengan nilai cut-off yang didapat untuk sudut dan dapat menjadi acuan dasar pada operasi kanaloplasti.
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Background and Objectives: Microtia is a congenital malformation with associated auricle atresia and middle ear abnormality, which is treated by canaloplasty and tympanoplasty. Drilling starting point and the direction in canaloplasty operation are no doubt very important things. Nowadays, guideline for determining the drilling direction has not been yet established. Middle ear volume which is one of important variable in determining operation outcome, has not been associated with and angle. This study intended to evaluate and angle and its relationship with middle ear volume using (HRCT) temporal bone.
Method: Cross-sectional design were used. Data from previous HRCT examination were used to measured and angle and middle ear volume.
Results: From 34 subjects, there were significant differences of and angle in microtic ear compared to normal ear, with p < 0.001. Middle ear volume average for microtic ear and normal ear were 0.36 cc and 0.67 cc, respectively. No significant correlation between middle ear volume and and angle. Cut-off value for angle is 15.40 with sensitivity 85.3% and specificity 82.4%. Cut-off value for angle is 270 with sensitivity 73.5% and specificity 76.5%.
Conclusion: Differences in ossicular position with obtained cut-off value for and angle could become a base guidance in canaloplasty operation.