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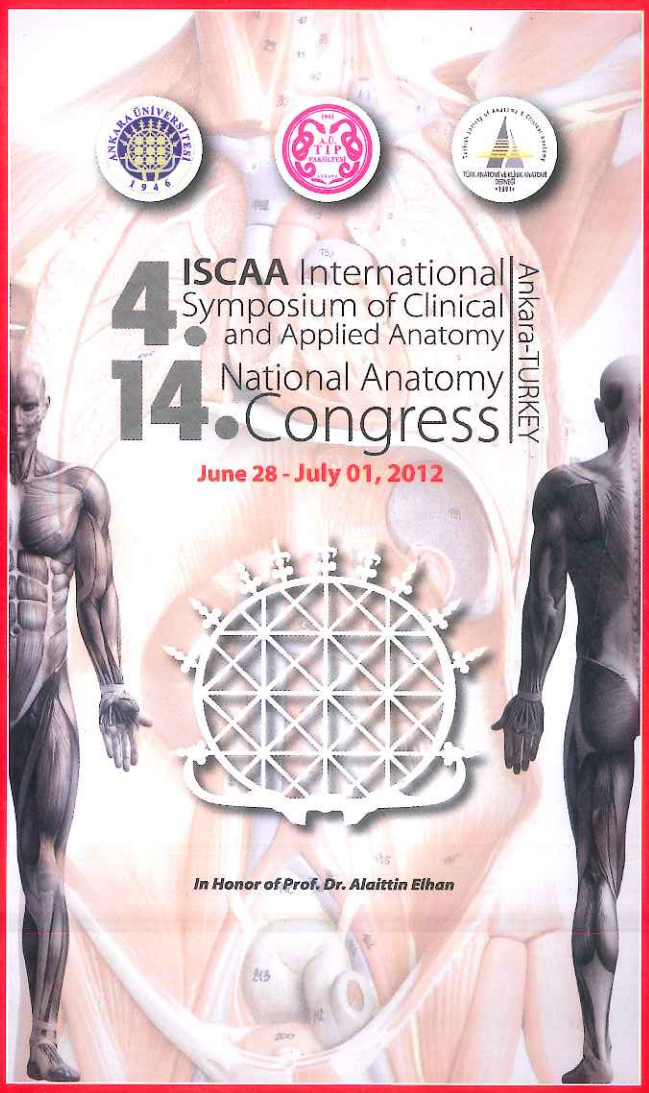
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International Journal of Experimental and Clinical Anatomy

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Aim and Scope

Anatomy (International Journal of Experimental and Clinical Anatomy) is published annually under consideration of high level of scientific quality publication. The goal of the journal is to constitute a forum for anatomical investigations involving gross, histologic, developmental, neurological, radiological, clinical anatomy, and teaching techniques. The journal is open to original papers covering a link between gross anatomy and areas related with clinical anatomy such as experimental and functional anatomy, neuroanatomy, comparative anatomy, modern imaging techniques, molecular biology, cell biology, embryology, and morphological studies of veterinary discipline. Additionally, manuscripts dealing with all forms of teaching anatomy will be considered for publication.

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Asthma is a clinical syndrome characterized by chronic airway inflammation, airway responsiveness, and expiratory airflow limitation. Nocturnal symptoms and decreases in lung function are common aspects of the asthma clinical syndrome. Nocturnal symptoms also appear to be associated with asthma-related mortality. In addition to its importance to the regulation of human circadian rhythms, an accumulating body of evidence also suggests that melatonin is also involved in the regulation of smooth muscle tone. For this reason, this study aimed to evaluate contraction and relaxation responses in tracheal smooth muscle rings obtained from rats treated with melatonin. Following administration of melatonin (50 mg/kg/day) at the same time every day for 6 weeks, in vitro organ bath experiments were performed with rat tracheal preparations exposed to contractile (acetycholine and serotonin) and relaxant (theophylline and papaverine) agents. Melatonin treatment strengthened contraction responses, but did not affect relaxation responses in rat tracheal preparations. We think that melatonin might play a role in the pathogenesis of nocturnal asthma. Therefore, clinicians should be aware of the importance of melatonin to nocturnal exacerbation of asthma symptoms and alert asthmatic patients that use exogenous melatonin supplementation of its potential negative effects.

Keywords: Melatonin, bronchial asthma, circadian rhythm, trachea

P-65

Location of internal acustic canal in relation to anatomical landmarks

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Location of internal auditory canal (IAC) is of importance during middle cranial fossa surgery. It's important to know its location in relation to other anatomical landmarks. We used 24 cranial bases (48 specimens), 38 right-side and 33 left-side temporal bones; 119 specimens overall. Medial (MUMPB) and lateral (LUMPB) edges of upper margin of petrous of bone (UMPB) were determined. Medial (ME), lateral (LE) and upper medial (UME) points of entrance (E) of IAC were identified. UMPB, ME – MUMPB, LE – LUMPB, UME – UMPB distances were measured. UMPB was divided into three equal parts and position of E was evaluated in relation to these parts. The length of UMPB were measured as 56,29 ± 4,37 mm; ME – MUMPB and LE – LUMPB UME – UMPB distances were 15.61±2.69 mm and 34.37±3.71 mm respectively. UME – UMPB distance was measured as 4.87±2.19 mm. It was observed that O was located in both medial and middle parts in 95%, in middle in 4.2% and in medial in 0.8% of cases. Results of this study will help to determine of location of IAC during temporal bone surgery.

Keywords: Middle cranial fossa, internal auditory canal, temporal bone

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Angular description of the localization of the internal acustic canal

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Internal auditory canal (IAC), is a canal of 1.5 cm length in the petrous part of the temporal bone. Exact knowledge of the localization of IAC is important in the surgical interventions. We used 24 cranial bases (48 specimens), 38 right-side and 33 left-side temporal bones; 119 specimens overall. The lengths of the lateral, and medial walls and the entrance pole of the IAC were measured. Taking into consideration the localization and structural properties of IAC, it was described as a triangle. Knowing the three sides of this triangle, using the law of cosines, the angles of it were calculated. A angle: The angle between the M-O; B angle: The angle between the L-O; C angle: The angle between the M-L. The L, M, O lengths were measured as10.03±1.65 mm, 13.43±1.78 mm, 8.30±1.38 mm in order. The angles of the triangle were calculated as A= 47.54± 11.09°, B= 95.01±15.64°, C= 37.43±8.86°. Localization of the IAC is key to the middle cranial fossa (MCF) approach. The results of this study will guide to define of the location of the IAC in the temporal bone.

Keywords: Internal auditory canal, angle, temporal bone

P-67

Radiographic findings of lumbar disc degeneration

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Radiography is a widely accepted and low cost method to measure structural changes of bone. Lumbar disc degeneration is characterized by the presence of osteophytes, end plate sclerosis and disc space narrowing in lumbosacral radiographic images. The aim of our study was to assess the characteristic radiologic findings of lumbar disc degeneration. Our study was designed to assess lumbar osteophytes, disc space narrowing and end plate sclerosis. The study group included one thousand male patients. Anterioposterior-lateral spinal radiography of each vertebral level from L1-L2 to L5-S1 was assessed. The presence and grades of osteophytes, disc space narrowing and end plate sclerosis were evaluated by the observers. Pearson correlation test was used for the statistical analysis. In lumbosacral radiographs 90.6% of all lumbar vertebral levels showed osteophytes, 87.5% end plate sclerosis and 68.2% disc space narrowing. There was a significant relationship among the radiographic features by Pearson correlation test. In addition the results of this study showed that pairs of osteophytes frequently formed in the upper