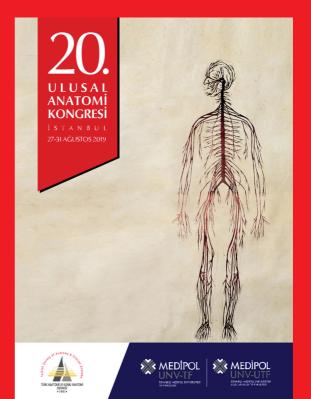
Official Publication of the Turkish Society of Anatomy and Clinical Anatomy



## Volume 13 Supplement 2 August 2019

Special Issue includes abstracts for the 20<sup>th</sup> National Anatomy Congress, 27–31 August 2019, Istanbul, Turkey





people living with dementia,most of them are related to Alzheimer's disease,worldwide is estimated at 35.6 million in 2010 and set to almost double by every twenty years. Neuropsychologic assessment is important to evaluate cognitive impairments with age as well as disease only.We aim to investigate Alzheimer's disease,which increase every year by double, how to affect anatomical structures which are in the nervous system.

**Methods:** We searched Alzheimer's disease how to influence anatomical structures and organs of nervous system by scanning literature review which in the recent five years.

**Results:** Decreased glucose metabolism in the initial part of precuneus dexter, which is part of the lobus parietal dexter on the medial surface of hemispherium cerebri, is thought to be a symptom in the early diagnosis of memory impairment and memory loss in AD. It is found that declines in activation of the temporal and prefrontal lobes: left temporal pole, eft triangular part of the inferior frontal gyrus, bilateral hippocampus; and occipital (and anterior limbic) lobe(s): right lingual gyrus (visual cortex), left middle occipital gyrus with related to Alzheimer's disease memory impairment. Alzheimer patients have reduced gray matter volumes of structures in the anterior medial temporal lobe and the results suggest that structural change in the left hippocampus is.

**Conclusion:** It is identified that recent researches concentrate more in temporal lobe, frontal lobe and hippocampus of nervous system in Alzheimer's disease.

**Keywords:** anatomy, Alzheimer's Disease, hippocampus, lobus temporalis, lobus frontalis, neuropsychiatric evaluation

### P-089

# Anatomical structures of nervous system associated with depression

### <u>Yücel N</u><sup>1</sup>, Huyut BÇ<sup>2</sup>, Özmen A<sup>3</sup>, Şeker M<sup>4</sup>

<sup>1</sup>Health Sciences Institute Anatomy, PhD Student, Necmettin Erbakan University, Konya, Turkey; <sup>2</sup>Institute of Social Sciences Psychology-Clinical Psychology PhD Student, Istanbul Arel University Istanbul, Turkey; <sup>3</sup>Department of Psychology Undergraduate Student, Faculty of Humanities and Social Sciences, Istanbul Üsküdar University, Istanbul, Turkey; <sup>4</sup>Department of Anatomy, Meram School of Medicine, Necmettin Erbakan University, Konya, Turkey

**Objective:** According to WHO research; more than 300 million people suffer from depression in the world. Especially when long-lasting and with moderate or severe intensity, depression may become a serious health condition. We aim to investigate depression, which is the one of the most important mental disorder, how to affect anatomical structures which are in the nervous system.

**Methods:** We searched depression how to influence anatomical structures of nervous system or organs by scanning literature review which in the recent years.

**Results:** Corpus amygdaloideum, Hippocampus, ventromedial and mediodorsalis sections of Cortex prefrontale, subgenual, rostral / pregenual and dorsal sections of Cortex cingulate anterior plays act in emotional regulation. Hippocampus volume, cortex thickness in the rostral part of the gyrus frontalis medialis, orbitofrontal and dosolateral sections of the cortex prefrontale, Gyrus temporalis inferior, functional connections of the cortical structures, anterior and posterior of the cortex cingulate anterior, Corpus amygdaloideum and in subcortical brain areas, such as the hippocampus and Striatum ventral, changes are seen in patients with Major Depressive Disorder. In addition, Cortex prefrontale areas receiving data from areas such as Corpus amygdaloideum and Nucleus accumbens and structural changes in Hippocampus are associated with a lack of neuroplasticity. Functional connectivity analysis shows a significant increase in functional connectivity between the subgenual portion of the cortex cingulate anterior, the Corpus amygdaloideum dexter, and the sinister and Hippocampus in patients with Major Depressive.

**Conclusion:** It is found that scientific researches continue to investigate and there is no absolutely clear knowledge about depression how to affect anatomical structures of nervous system.

Keywords: anatomy, depression, nervous system, neuropsychiatry

#### P-090

#### Important landmarks in fossa cranii media surgery

<u>Özşahin E</u><sup>1</sup>, Erdem H<sup>2</sup>, Boyan N<sup>2</sup>, Oğuz Ö<sup>2</sup>

<sup>1</sup>Department of Anatomy, School of Medicine, Başkent University, Adana, Turkey; <sup>2</sup>Department of Anatomy, School of Medicine, Çukurova University, Adana, Turkey

**Objective:** Surgical operations regarding to middle cranial fossa are challenging and reliable anatomical landmarks are required. There is a lack of knowledge on anatomical variations in this region. The aim of this study was to determine the safe surgical reference landmarks for middle cranial fossa surgery.

**Methods:** In this study, 23 adult dry skulls were evaluated: the age and sex of the specimens were unknown. All measurements were taken from norma basalis by using digital calipers accurate to 0.01 mm. In right and left sides; the distances between the external acoustic meatus (EAM) and the following anatomical landmarks were measured: end point of styloidprocess (SP); midpoint of pterygo maxillary fissure (PMF); midpoint of foramen ovale (FO); midpoint of foramen spinosum (FS); midpoint of carotid canal (CC); articular tubercle (AT); anterior border of squamous suture (ASS); posterior border of squamous suture (PSS) and superior border of squamous suture (SSS).

**Results:** The distances of the external acoustic meatus to the anatomical structures on the right and left sides were: EAM-SP; 24.24±3.19 mm, 23.16±3.17 mm; EAM-PMF; 46.56±4.51 mm, 46.25±3.96 mm; EAM-FO; 27.57±2.87 mm, 28.70±2.85 mm; EAM-FS; 22.53±3.19 mm, 22.72±3.47 mm; EAM-CC; 17.35±3.56 mm, 17.19±3.39 mm; EAM-AT; 19.31±3.79 mm, 18.95±3.42 mm; EAM-ASS; 43.14±4.80 mm, 46.82±4.61 mm; EAM-SSA; 36.15±4.24 mm, 35.39±4.25 mm ve EAM-SSS; 49.17±4.74 mm, 48.83±3.34 mm respectively.