Abstract

The middle ear is an irregular cavity composed of three ossicles, malleus, incus, stape, which transmit sound waves to the inner ear and converted into mechanical energy. Due to the importance of the middle ear in voice transmissions this study was established. In this research, in order to investigate morphologically, the details of sus scrofa Atilla middle ear ossicles, 5 matured male animals skulls were used. After anatomical examination of different parts of the temporal bone and removing the bones, the middle ear bones were exposed, in addition to examine the shape, dimensions and details of each bone were measured using an ocular micrometer. Finally, data were evaluated and analyzed using the Sigma Statt statistics software. In sus scrofa Atilla, temporal bone, similar to other animals, consisted of three parts: squamous, tympanic and petrous part. The length of the outer ear canal to the tympanic membrane is 37±0.14 mm. The tympanic membrane is circular in animal and the diameter of the tympanic membrane is about 12.5±0.21 mm. The tympanic membrane has also Beige color. In the boar, the number of middle ear ossicles was three, including Malleus, Incus and Stapes. Morphometric results showed that the Malleus ossicle had a head, neck, handle and three distinct process including anterior, muscular and lateral process. Incus ossicle consists of a body, two long and short crura and has two articular surfaces. A short or posterior crura attaches to the posterior wall of the body and the long crura are connected to the stape ossicle. The Stape ossicle has a footplate and three anterior, posterior, and muscular process which anterior process is shorter than posterior. In the present study, the components of the middle ear in the boar was investigated. It was determined that the number of middle ear ossicles in the boar was similar to pigs, and the only difference was the size of the ossicles processes.

Key words: Anatomy, Ossicle, Middle ear, Sus scrofa Atilla
References


