**ABSTRACT**

Age-related hearing impairment (ARHI), known as presbycusis, is a progressive, bilateral, high-frequency sensorineural hearing loss (SNHL) that is characterized by auditory test. The condition affects approximately 23-37% of the population aged 60-69 years and 40-60% of the population aged 70-79 years. In the 2010 Korean census, it was estimated that 1% of the population was 65 years or older and that this number is expected to increase by more than two-fold by the year 2030. These findings also suggest a strong association between hearing loss and metabolic disorders.

**METHODS AND MATERIALS**

From May 2008 to December 2011, 662 consecutive subjects ≥ 40 years of age were recruited from the Health Screening and Promotion Center of Asan Medical Center, Seoul, Korea, and underwent fat measurement CT and pure tone audiometric examinations. The hearing threshold increased across all four quartiles of the ratio of the VAT area to the subcutaneous adipose tissue area (SAT) in women, however, there was no significant association between adipose tissue area and hearing threshold or SAT in men. Old-age suggested VAT was significantly associated with hearing impairment in women. A reduction of the subcutaneous adiponectin in women may be a suitable candidate for the prevention of hearing loss.

**RESULTS**

**CONCLUSIONS**

From May 2008 to December 2011, 662 consecutive subjects ≥ 40 years of age were recruited from the Health Screening and Promotion Center of Asan Medical Center, Seoul, Korea, and underwent fat measurement CT and pure tone audiometric examinations. The hearing threshold increased across all four quartiles of the ratio of the VAT area to the subcutaneous adipose tissue area (SAT) in women, however, there was no significant association between adipose tissue area and hearing threshold or SAT in men. Old-age suggested VAT was significantly associated with hearing impairment in women. A reduction of the subcutaneous adiponectin in women may be a suitable candidate for the prevention of hearing loss.

**REFERENCES**