Association of dietary intake and age-related hearing loss: A narrative review

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ABSTRACT

Introduction: According to World Health Organization (WHO) prevalence of age-related hearing loss (ARHL) or presbycusis is increasing at alarming rate. Its prevalence is around 25-30 percent in people aged 65-74 years. In addition to health problem, ARHL also effect economic burden for hearing aids and treatments. Current studies showed there are relation between dietary and nutritional intake in development of ARHL. **Materials and Methods:** The articles were search using database PubMed, Google Scholar, Web of Science and Scopus. The keyword used were age related hearing impairment or loss, presbycusis, nutrition intake and dietary intake. All the related articles published in English within 10 years were included in this review. **Results:** Studies showed that high consumption of anti-oxidants such as Vitamin A, C and E, fruits and vegetables, and polyunsaturated fatty acid (Omega 3) can prevent or slower the development of ARHL. Besides, higher intake of seeds and nuts, fruits, seaweed, and vitamin A were positively associated with better hearing and prevent ARHL. Higher intake of riboflavin, niacin and retinol was inversely associated with ARHL prevalence. While other study reported that lower intake of niacin and potassium, and higher intake of carbohydrates as a risk factors for ARHL. Ultra-processed foods intake also significantly correlated with high-frequency hearing loss. Study done for adult American populations also found that high caffeine intake was associated significantly higher rate of ARHL particularly those under 65. In addition, sugary foods, high-caloric drinks, beer, and spirits also had significant relation for development of ARHL. **Conclusion:** From the review we conclude that dietary intake has association with ARHL. High intake of antioxidants such as vitamin A, C, E, Omega 3, riboflavin, niacin and retinol can prevent ARHL. While high consumption of carbohydrate, ultra processed food, sugary food, caffeine and high caloric drinks are the risk factors to develop ARHL.

Keywords: Age related hearing loss, presbycusis, nutrition, dietary