

## عنوان مقاله:

A study on the prevalence of hearing loss after head and neck radiotherapy with three-dimensional conformal (radiotherapy 3D-CRT)

## محل انتشار:

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## نویسندگان:

Sohaila Yazdani - MSc of Medical Physics, Department of Medial physics, Kermanshah University of Medical Sciences, Kermanshah, Iran

Karim Khoshgard - Assistant Professor, Department of Medial physics, Kermanshah University of Medical Sciences, Kermanshah, Iran

Mehran Yarahmadi - Assistant Professor, Department of Medical physics, Kurdistan University of Medical Sciences, Sanandaj, Iran

Negin Farshchian - Assistant Professor, Imam Reza Hospital, Kermanshah University of Medical Sciences, Kermanshah, Iran

## خلاصه مقاله:

**Introduction:** Radiotherapy (RT) plays an important role in treatment of head and neck cancers. In almost 75% of patients with head and neck cancers, RT as the main treatment method is used in order to radical or palliative treatment. Hearing loss is one of the side effects of RT for patients whose inner ear is included in radiation field. The aim of this study was to evaluate the prevalence of hearing loss in patients with head and neck cancers who had undergone three-dimensional conformal radiotherapy (3D-CRT). **Materials and Methods:** In this study 68 ears with an average age of 40.2 years (range 16-60 years) were studied. Pure tone audiometry was performed at frequencies of 250, 500, 1000, 2000, 4000 and 8000 Hz. Patients with an acceptable result of audiometry initial test were included in this study. They were evaluated three times: before RT, at the end of RT, and three months after RT. The patient's treatment planning was performed using Isogray software and statistical analysis of the results was done with SPSS software. **Results:** The results are based on the CTCAE V. 4.0 criteria showed 19% ears at the end of radiotherapy, compared with before treatment were suffering from hearing loss. Three months after the end of radiotherapy, the prevalence and severity of hearing loss increased in patients, so that 37% of the ears having hearing loss. **Results** Statistical analysis showed that at all frequencies studied, the threshold of hearing at the end and three months after the end of radiotherapy compared to baseline, significantly changed ( $p \leq 0.001$ ). **Conclusion:** Considering the high prevalence of hearing loss, 37% just three months after the end of radiotherapy, and progressive with time of this complication (an increase of 18% in 3 months), post-treatment auditory care is very important for these patients

## کلمات کلیدی:

Radiotherapy, Head and neck cancers, Hearing Loss, Audiometry

## لینک ثابت مقاله در پایگاه سیویلیکا:

