

## Evaluation of vestibular function of patients with temporal bone fracture through the video head impulse test (vHIT): Preliminary results

Laura Martins Giraldi\*, Henrique Furlan Pauna, Lisandra Megumi Arima dos Santos, Natali Farias Dezontini  
Hospital Universitário Cajuru, Pontifícia Universidade Católica do Paraná (PUCPR), Curitiba, PR, Brazil  
E-mail address: [lauramgiraldi@gmail.com](mailto:lauramgiraldi@gmail.com) (L.M. Giraldi)

**Objectives:** To evaluate the vestibular function of patients victims of traumatic brain injury (TBI) and temporal bone fracture by means of the video head impulse test (vHIT).

**Methods:** Observational cross-sectional study. Patients with temporal bone fracture treated at a tertiary hospital referred to trauma were included. Patients with previous diagnosis of vestibular disease and using vestibular suppressive medication were excluded. The presence of vestibular and auditory signs and symptoms at the bedside was verified. Around the 30th day after the trauma, the patients underwent the vHIT examination. The presence of an association between alteration in vHIT and type of fracture, optic capsule involvement and vertigo symptom were analyzed by Fisher's exact test. Values of  $p < 0.05$  indicated statistical significance.

**Results:** Twenty-two patients, all male, with a mean age of 42.1 years were included. The most prevalent mechanism of trauma was bicycle fall (41.7%). In 66.7% of the cases the fracture was on the right. Regarding the type of fracture, 83.3% were longitudinal, 8.3% transverse and 8.3% mixed. There were only 1 case (8.3%) of optic capsule involvement in the fracture. Only 6 (50%) were submitted to vHIT. The patient with fracture involving the optic capsule presented labyrinthine hypofunction in the anterior, lateral and posterior ipsilateral canal to the fracture. The analysis of the presence of association between alterations in the vHIT exam with the presence of vertigo, type of fracture and involvement of optical capsule showed no statistical significance ( $p > 0.04$ ). Only 1 underwent the audiological examination, presenting moderate mixed hearing loss.

**Conclusion:** Vestibular evaluation through vHIT has been increasingly used. It is notable that although they are preliminary results, the present study shows originality when investigating the theme through vHIT in patients with temporal bone fracture.

**Keywords:** Craniocerebral traumas; Head impulse test; Cranial fractures; Dizziness.

<https://doi.org/10.1016/j.bjorl.2022.10.023>

## Evaluation of response and survival of patients with head and neck squamous cell carcinoma submitted to surgical resection as exclusive therapy at the Clinical Hospital of the State University of Campinas

Daniel Naves Araujo Teixeira<sup>a,\*</sup>, Fabio Lau<sup>a</sup>, Vanessa Carvalho de Oliveira<sup>a</sup>, Eduardo Vieira Couto<sup>a</sup>, Lígia Traldi Macedo<sup>b</sup>, Carmen Silvia Passos Lima<sup>b</sup>, Carlos Takahiro Chone<sup>a</sup>

<sup>a</sup> Departamento de Otorrinolaringologia e Cirurgia de Cabeça e Pescoço, Universidade Estadual de Campinas (Unicamp), Campinas, SP, Brazil

<sup>b</sup> Departamento de Clínica Médica, Disciplina de Oncologia Clínica, Universidade Estadual de Campinas (Unicamp), Campinas, SP, Brazil

E-mail address: [daniel.naves@yahoo.com.br](mailto:daniel.naves@yahoo.com.br) (D.N. Teixeira)

**Objectives:** Descriptively analyze epidemiological, pathological, pathological and outcome data, in addition to estimating the influence of staging, primary site and anatomopathological characteristics on overall survival and disease-free survival in patients with neck head squamous cell carcinoma.

**Methods:** Retrospective study based on the analysis of 102 patients with neck head squamous cell carcinoma submitted to surgery as a single therapy, attended at the Clinical Hospital of the State University of Campinas from 2010 to 2019. Exploratory data analysis through summary measures. The groups were compared using the Chi-Square test or Mann-Whitney test. The Kaplan-Meier estimator was used to estimate overall and disease-free survival. The survival of the groups was compared through the Log-Rank test. The factors associated with the time of death and recurrence were analyzed by Cox Regression.

**Results:** Data were collected from 102 patients. The majority had stage I or II (81.4%). Regarding the outcome, 21.6% had recurrence, 18.6% died and 84.3% had a complete response. Active smokers had lower complete response, higher risk of death and recurrence. Perineural invasion is also associated with death. The overall and disease-free survival time at 5 years was 74.7% and 69.3%, respectively. The staging and primary site of the tumor did not significantly alter the survival of the patients.

**Discussion:** This study brings important epidemiological data, shows the importance of active smoking as an important risk factor for death, tumor recurrence and in the complete response after surgery. It also shows overall survival and disease-free survival at 5 years, similar to that found in the literature. **Conclusion:** Surgery as an exclusive therapy in early tumor stages is an important therapeutic weapon in squamous cell carcinomas of the neck head.

**Keywords:** Head and neck cancer; Squamous cell carcinoma; Surgery; Survival.

<https://doi.org/10.1016/j.bjorl.2022.10.024>