

Cervical versus superficial temporal recipient vessels in midface and scalp free tissue flap for advanced oncologic reconstruction: Prospective and randomized study

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Objectives: To demonstrate our surgical experience in midface and scalp advanced oncologic reconstruction using free tissue flap and to compare the postoperative outcomes based on superficial temporal versus cervical recipient vessels.

Methods: We performed a prospective and randomized study of patients who underwent midface and scalp oncologic reconstruction with free tissue flap from April 2018 to April 2022 in an oncologic referenced center. Two groups were analyzed: those in whom superficial temporal vessels were used as the recipient vessels and those in whom cervical vessels were used as the recipient vessels. Patient gender and age, cause and classification of the defect, flap choice for reconstruction, recipient vessels, postoperative course, and complications also were recorded and analyzed. A Fisher's exact test was used to compare outcomes between the 2 groups.

Results: On the basis of the different recipient vessels, 27 patients were randomized into 2 groups: those with superficial temporal recipient vessels ($n = 12$) and those with cervical recipient vessels ($n = 15$). There were 18 male and 09 female patients with an average age of 53.92 ± 17.49 years. The overall flap survival rate was 88.89%. The overall complication rate for vascular anastomosis was 14.81%. The total flap loss rate in patients with superficial temporal recipient vessels was higher than the complication rate in those with cervical recipient vessels but with no statistical significance (16.67% vs 6.66%, $p = 0.56$).

Discussion: Few articles have specifically compared the postoperative results based on recipient vessels in midface and scalp reconstruction. In this prospective and randomized study a group of 27 patients who underwent midface and scalp reconstruction were divided into 2 groups according to the recipient vessels used. In terms of complications, no statistically significant differences were found between the groups. In our series, the overall flap survival rate was 88.89%. These data are similar to the world series that report rates above 90% of success in free flaps.

Conclusion: In the group with superficial temporal recipient vessels, the postoperative rate of microanastomosis complication was similar than the cervical recipient vessel group. Therefore the use of superficial temporal recipient vessels for midface and scalp oncologic reconstruction could be a reliable option. **Keywords:** Free tissue flaps; Head neck

cancer; Microanastomosis; Superficial temporal vessels; Cervical vessels.

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Follow up study of patients with sudden deafness in tertiary hospital

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Objectives: To evaluate the auditory improvement and quality of life in the labor and social sphere scans in patients diagnosed with sudden deafness from 2014 to 2021 treated in the Otorhinolaryngology Emergency Room of a tertiary hospital in the Federal District.

Methods: 50 patients were scheduled for a follow-up after the diagnosis of sudden sensorineural hearing loss with application of the reassessment protocol, anxiety scale and Beck depression. If tinnitus complains, the Tinnitus Handicap Inventory was applied. Also, they performed the otoacoustic emissions, audiometry and impedance methanime tests. This study was approved by the Ethics and Research Committee with protocol 46677821.3.0000.8153.

Results: Fifty patients diagnosed with sudden deafness from 2014 to 2021 in the Emergency Room of a tertiary hospital in the Federal District participated in the study. 46% of the patients underwent treatment with oral corticosteroid therapy with auditory improvement in 60.8% by the criterion of Furuhashi and Modified Siegel. In 5 cases of the studied participants, due to comorbidities that contraindicate the use of oral therapy, intratympanic corticosteroid therapy was indicated and a 60% rate of hearing improvement was observed. In 40% of the participants, the association between oral and intratympanic rescue corticosteroids was performed with good results in 35% of the cases. Of the remaining participants, 1 did not undergo treatment and 1 underwent surgery. 52% had a minimum score in the Beck Depression questionnaire and 44% had a minimum score in the Beck Anxiety questionnaire. In the THI questionnaire, 20% was severe and 26% catastrophic.

Discussion: Few studies address the impact that sudden sensorineural hearing loss has on the patient's quality of life. It is compromised by the impact of vertigo, tinnitus and difficulty in sense of direction and understanding due to unilateral hearing loss. In this study, we observed a high score of depression and anxiety in patients who remained with hypoacusis after treatment. With the application of THI, this study evidenced the significant social, labor and personal impact in patients who persisted with tinnitus.

Conclusion: It is necessary to carry out a multidisciplinary approach of these cases due to the social and psychological impact of this diagnosis. It is important a long-term follow-up for audiological follow-up, auditory and social rehabilitation in view of the great impact of this disease on the well-being and comfort of these patients.

Keywords: Sudden hearing loss; Audibility assessment; Quality of life; Rehabilitation of hearing loss; Tinnitus.

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Quality of life assessment after septoplasty

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Septal deviation has high prevalence in population and it is an important cause of nasal obstruction which may decrease quality of life.

Objective: Assessing the impact of septoplasty in patients with deviated septum and nasal obstruction based on a quality-of-life questionnaire.

Methods: Prospective design. Patients undergoing septoplasty were assessed by the NOSE questionnaire before surgery, 2 months after surgery and 6 years after surgery. We evaluated the surgical improvement based on total score, the magnitude of the surgery in the disease-specific quality of life and the correlation between the preoperative score and postoperatively improvement.

Results: Twenty-six patients were included in the study. The mean age of patients undergoing surgery was 33.7 years. There was a statistically significant improvement in the preoperative NOSE score, after two months and after 6 years.

Conclusion: Septoplasty resulted in improvement in quality-of-life in adults with septal deviation and nasal obstruction.

Keywords: Septoplasty; Septal deviation; Nasal obstruction; Quality-of-life.

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Susceptibility of the Swiss model to ampicillin

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Ampicillin causes irreversible ototoxicity and early detection of this disease is considered a difficult task. Clinical studies of the effects of ampicillin in men have revealed that the drug can produce changes that cause tinnitus, hearing loss at high frequencies and behavioral manifestations. The anatomical–physiological equivalence of the peripheral auditory system of humans with mice causes this model of animal to be routinely used in clinical trials, as they contribute to the prevention, diagnosis and treatment of alterations caused by the use of this drug.

Objective: This study aimed to verify the susceptibility of the Murino Swiss model to external hair cell lesions caused by the use of aminoglycoside ampicillin.

Method: Experimental, prospective and intervention research, approved by CEUA/UnB no. (63/2018). The animals were divided into two groups: control group (G1) and Ototoxic Ampicillin (G2). G1 received sodium chloride (serum) solution 10 mg/kg/day and G2 received ampicillin 400 mg/kg/day. The solutions were offered daily intraperitoneally for 14 consecutive days. Otoacoustic emissions were performed by distortion product at frequencies from 6 to 12 kHz in T0 and T14 and histological study of the ympanic leaflets were performed. The analyses were carried out using the Prism[®]5 program. Differences with $p < 0.05$ were considered significant.

Results: The use of ampicillin in a dose of 400 mg/kg/day for 14 consecutive days did not cause damage to external snare cells and cochlear structures in the SWISS model.

Conclusion: Swiss mice have resistance to ototoxicity of ampicillin under treatment at the dosage of 400 mg/kg/day for 14 days intraperitoneally.

Keywords: Hearing loss; Cochlea; Ototoxicity; Inner ear; Audiology; Ampicillin.

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Melatonin as prevention in age-related hearing loss in model murino C57BL/6J

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Objective: The present study aimed to perform a morphological and morphometric analysis of the cochlear structures of C57BL/6J mice receiving oral melatonin for a period of 12 months.

Methods: 32 C57BL/6J males were divided into control and melatonin groups. The control received saline and ethanol solution and the melatonin group, 50 μ l of 10 mg of melatonin/kg/day orally for a period of 12 months. After the experiment, the animals were sacrificed in a concentration chamber of 40% CO₂, and the slides were analyzed morphologically and morphometrically.

Results: The melatonin group revealed higher median density of viable cells (45 ± 10.28 cells/100 μ m², 31–73, versus 32 ± 7.47 cells/100 μ m², 25–48). The median area of the vascular stria was 55.0 ± 12.27 cells/100 μ m² (38–80) in the control group and 59.0 ± 16.13 cells/100 μ m² (40–134) in the melatonin group. Morphometric analysis of the spiral ligament reveals a higher median of total viable neurons in melatonin (41 ± 7.47 cells/100 μ m², 27–60) than in the control group (31 ± 5.68 cells/100 μ m², 21–44).

Conclusion: Although melatonin is a potent antioxidant, it does not completely neutralize the occurrence of presbycusis; however, it may delay the appearance of this condition.

Keywords: Hearing loss; Cochlear; Inner ear; Melatonin; Presbycusis.

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