

of symptoms. The inclusion criterion was the existence of proof of infection by Covid-19 through previous RT-PCR, performed during the acute phase of symptoms. Patients with a history of pre-existing hyposmia to Covid-19 infection, as well as individuals with chronic rhinosinusitis, a history of traumatic brain injury, skull base surgery or neurodegenerative diseases were excluded.

Results: The study included 20 patients with complaints of persistent smell alteration, with a minimum time of 1 month after the acute infection by Covid-19. The age group of the participating individuals ranged from 18 to 58 years, with a mean of 40.1 (± 11.6) years. It is observed that, during the interview, half of the patients (50%) reported no perception of progressive improvement since the acute condition, and an equal number of patients (50%) had already started some treatment for the olfactory deficit under medical supervision. or not, the treatments being reported: olfactory training with homemade substances (15%), olfactory training with 4 pre-defined odors (25%) and medications (35%). Among those who reported the use of medication, the use of topical nasal corticosteroids alone (28.6%), alpha lipoic acid alone (28.6%) and the association of topical nasal corticosteroids and alpha lipoic acid (42.9%) stand out. It is shown that 45% of the participants reported a previous situation of exposure to danger due to the olfactory deficit, namely, the consumption of inappropriate food (44.4%), the non-perception of exposure to the flammable substance (22.2%) and non-perception of a nearby burning object (11.1%), in addition to the consumption of inappropriate food and non-perception of exposure to exposure to a flammable substance when reported by the same individual (22.2%). There was a report of hyposmia in all participating patients, considering that this complaint represented an inclusion criterion for the present study, although there was an association with parosmia (30%), phantosmia (50%) and taste alteration (75%). When asked to give a score on a one-dimensional scale of 0-10 for their olfactory function, participants reported scores that ranged from 1 to 7, with a mean of 3.7. The grades given for the degree of overall perceived impact ranged from 2 to 10, with an average of 6.0. Statistical analysis with estimation of Spearman's correlation coefficient showed a direct correlation between the low scores given for smell in the patient's perception and lower values in the total score of the olfactory test ($p < 0.003$; $r 0.63$).

Discussion: Smell is a very important sense in the individual's interaction with the environment that surrounds him. This sense allows the identification of dangerous situations, awakens memories, helps the perception of flavors and plays an important role in interpersonal interactions. Thus, losses in this function have a great potential to impact the quality of life of the affected person, and may, for example, change diet habits, increase exposure to risk situations and generate emotional suffering.

Conclusion: The year 2021 was marked not only by the emergence of new cases of infection by Covid-19, but also by the recognition of sequelae left by the disease and the rehabilitation of patients affected by them. In this context, olfactory dysfunction stands out, which despite being short-

lived in most cases, can be long-lasting and generate great compromise in the quality of life and safety of the individual.

Keywords: Olfactory impairment; Hyposmia; Covid-19.

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Study of the otoprotective effect of dexametasone in ototoxicity induced by cisplatin in rats

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Objective: To evaluate the protection capacity of dexamethasone against the ototoxicity of cisplatin through the functional evaluations by brainstem evoked response audiometry (BERA) and morphological by optical microscopy.

Methods: Male Wistar rats were divided into four groups: 1. Control: 06 animals received saline intraperitoneal (IP) 8ml/kg/day for four days; 2. CDDP+D15: 11 animals received dexamethasone 15 mg/kg/day via IP and 90 minutes (min) after 8 mg/kg/day of cisplatin via IP for four days; 3. CDDP + D20: 07 animals received 20 mg/kg/day of dexamethasone via IP and 90 min after 8 mg/kg/day of cisplatin via IP for four days; 4. C + CDDP: 11 animals receive 8 ml/kg/day of saline via IP and 90 min after 8 mg/kg/day of cisplatin via IP for four days.

Results: Based on the results of this study, dexamethasone at the dose of 15 mg/kg/day was significantly protected against ototoxicity of cisplatin by means of the functional evaluation by BERA and morphological, through the preservation of vascular stria. There was no protection against systemic toxicity, evaluated through animal weight, with the use of corticosteroids.

Conclusion: Dexamethasone at a dose of 15 mg/kg/day protected against ototoxicity by cisplatin in functional evaluation by BERA and morphological by optical microscopy, but did not protect against systemic toxicity.

Keywords: Ototoxicity; Cisplatin; Dexamethasone.

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How many maneuvers are required for the effective treatment of posterior duct canal bppv ductolithiasis

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Objectives: To prospectively and randomly assess the number of Epley maneuvers necessary for the treatment of patients with posterior canal BPPV (ductolithiasis).

Methods: Fifty-nine patients were collected in the Otorhinolaryngology Department of the Tertiary Hospital of São Paulo and randomized in advance into 4 groups: Group

A, B, C, D in which 1, 2, 3 and 4 maneuvers were performed per session, respectively. After each maneuver, the presence of dizziness was questioned and the presence of nystagmus was analyzed; in weekly return, only considered complete improvement when the patient did not complain of dizziness or nystagmus to the Dix Hallpike maneuver.

Results: After statistical analysis, a homogeneous group was observed in gender, age and affected laterality. Nineteen of the 32 patients showed complete improvement in dizziness and nystagmus at the end of the maneuvers at the first contact, and of these, 18 (94.34%) patients showed complete improvement of BPPV at the first return ($p = 0.051$). Of the patients who underwent 01 maneuver per session, 81.8% presented complete improvement in the first return; of those who performed 01 maneuver, 63.6% showed complete improvement; of those who performed 03 maneuvers, 100% improved completely on the first return and among those who performed 04 maneuvers per session, 90.9% showed improvement in dizziness and nystagmus at the first return ($p > 0.05$).

Discussion: Dizziness and instability are prevalent pathologies (21% of the population) and represent 10.8% of the complaints of patients seeking care in otorhinolaryngology emergency rooms. Among the causes of dizziness, BPPV is the most common cause of 3 vertigo (present in 1.6–5% of the general population). Studies are important to reach a consensus on the best bpPV treatment.

Conclusion: The higher cure rate is not related to a higher number of Epleys maneuvers performed per session. Patients who performed maneuvers until dizziness and nystagmus ceased to show a high rate of complete improvement in return.

Keywords: Benign paroxysmal positional vertigo; Dizziness; Semicircular channels; Vestibular diseases; Vertigo; Treatment intention analysis; Treatment plan.

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Influence of apoptosis inhibitors on response to mometasone furoate in patients with RSCcPN

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Objectives: To compare the expression of apoptosis inhibitors (APs) among patients with and without Chronic Rhinosinusitis with Nasal Polyp (RSCcPN), to compare the expression of apoptosis inhibitors among patients with RSCcPN who had a good response to topical nasal corticosteroids with those who had inadequate response, and also correlate the expression of apoptosis inhibitors to inflammatory markers in patients with RSCcPN.

Methods: Clinical data were collected from patients with RSCcPN followed in a reference service through a quality of life questionnaire – SNOT-22, and the measurements of the endoscopic score (Lund-Kennedy) and the tomographic score (Lund-Mackay) were performed. Nasal polyp samples were collected from patients with RSCcPN (without clinical treat-

ment for at least 1 month of recruitment) and sampled of the middle shell of the controls for analysis. Gene expression of apoptosis inhibitors (XIAP, BIRC2/IAP1 and BIRC3/IAP2) and caspases (CASP3, CASP7, CASP9 and BCL2) were measured by qRT-PCR. The dosages of pro-inflammatory cytokines (IFN- α , IL-5, IL-33, IL-10, IL-17 and TGF- β) were measured by the Luminex method. The comparison between the group of patients with nasal polyp and controls was performed by non-paired parametric tests. The patients in the study group were also divided into good and bad responders to the nasal topical corticosteroid for the evaluation of the response to treatment. Principal Component Analysis (PCA) was used to correlate the expression of markers evaluated here with the response to topical nasal corticosteroids in patients with RSCcPN.

Results: The final study was then composed of 27 patients with RSCcPN (17 females; mean age 46 ± 12.2 years), and 16 controls (14 female; mean age 29.8 ± 9.2 years). We found lower expression of the three apoptosis inhibitor genes (XIAP, BIRC2/IAP1 and BIRC3/IAP2) and significantly higher expression of the cytokines IFN- α , IL-5 and TGF- β in patients with RSCcPN compared to disease-free patients. Some patients had a very good response to the medication, while others practically maintained the same intensity of symptoms and endoscopic score. From this observation, we separate the patients into two groups, the ones with good response to topical corticosteroids and poor responders. We observed that patients who responded poorly to topical corticosteroids had significantly lower birc2/IAP1 indices when compared to those who had the best response. When associating the expression of markers with corticosteroid response using the PCA method, we identified that the markers BIRC2/IAP1, XIAP, BCL2, CASP9, IL-17 and IL-33 were increased in patients with better clinical response, while CASP7 and TGF- β were related to worse response to treatment.

Discussion: Inflammation with mixed pattern (T1, T2 and T3) was evidenced in patients with RSCcPN, when compared to controls. Our data suggest that the decrease in PIS is an important factor in the physiopathogeny of RSCcPN and in susceptibility to clinical treatment. Whereas PII modify the innate inflammatory cascade, the present findings reinforce the importance of the innate immunity process as an essential link between the environment, the epithelium and the chronicization of the inflammatory process, in addition to opening new perspectives on the importance of the epithelial barrier of the nasosinusal mucosa in RSCcPN.

Conclusions: Patients with RSCcPN showed lower expression of the 3 apoptosis inhibitor genes (IAPs) studied (BIRC2/IAP1, BIRC3/IAP2 and XIAP), in addition to significantly higher expression of inflammatory cytokines IFN- γ , IL-5 and TGF- β when compared to disease-free patients. The lower expression of BIRC2/IAP1 and XIAP was also related to the worse response to nasal topical corticosteroids. Finally, we observed that the expression of BIRC2/IAP1 and XIAP was strongly associated with the expression of IL-17A, CASP9 and CASP3, weakly associated with the expression of IL-33 and IL-5 and negatively associated with $\text{tgf-}\beta$ expression, reinforcing the large participation of PHI in apoptosis and inflammatory process.

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