

Revisiting the orbital complications of ARS: What classification has the best clinical applicability?

Mateus R. Soares, Wilma T. Anselmo-Lima, Jefferson P. Fonseca, Denny M. Garcia, Antonio A. Velasco e Cruz, Edwin Tamashiro, Fabiana C.P. Valera*

Faculdade de Medicina de Ribeirão Preto (FMRP), Universidade de São Paulo (USP), Ribeirão Preto, SP, Brazil
E-mail address: facpvalera@fmrp.usp.br (F.C. Valera)

Objective: This study aims to compare three classifications (Chandler, Mortimore & Wormard, e Velasco e Cruz & Anselmo-Lima), identifying which of them has the best clinical applicability to evaluate orbital complications of acute rhinosinusitis.

Methods: This is a transversal cohort study that evaluated all patients with diagnosis of infectious orbital affection in our hospital. Clinical data and computed tomography scans findings were collected from patients reports. All images were graded according to all three classifications evaluated in the present study and then, patients were divided into four groups: eyelid cellulitis, orbital cellulitis, subperiosteal abscess and orbital abscess. The groups were compared regarding the presence of sinus opacification, history of previous use of antibiotics, the need for hospitalization, and/or surgical treatment, the duration of antibiotics treatment, and the presence of further complication/sequelae.

Results: 143 patients were included; there was no significant difference regarding sex and age. In all groups, the sinuses most frequently involved were the ethmoid and maxillary. The total duration of antibiotics treatment, hospitalization rate and surgery rate were significantly lower in the eyelid cellulitis group compared to the other three. Binary logistic regression showed good prediction (AUC = 76.2) for the need for surgery in patients with ethmoid involvement. Older patients are also more likely to undergo surgery (OR 1.023 for each year of age).

Conclusions: Cases of eyelid cellulitis have a low association with symptoms and signs of rhinosinusitis. The division between orbital abscess, subperiosteal abscess and orbital cellulitis is necessary to predict the need for surgical treatment and the rate of further complications/sequelae. Velasco and Cruz & Anselmo-Lima's classification proved to be valid, simple and effective for categorizing cases of orbital complications of acute rhinosinusitis.

Keywords: Complicated acute rhinosinusitis; Orbital abscess; Orbital cellulitis; Orbital complications.

<https://doi.org/10.1016/j.bjorl.2022.10.010>

Piezo surgery versus conventional osteotomy: A comparative analysis of techniques

Aline Ouriques Freire Fernandes^a, José Rildo Fernandes de Oliveira Filho^{b,*}

^a *Universidade de Araraquara, Araraquara, SP, Brazil*
^b *Faculdade de Medicina de Ribeirão Preto (FMRP), Universidade de São Paulo (USP), Ribeirão Preto, SP, Brazil*
E-mail address: drjoserildo.face@gmail.com (J.R. de Oliveira Filho)

Rhinoplasty is a constantly evolving area of facial plastic surgery. Its main objective is to improve the aesthetics

and function of the nose and has in lateral osteotomy one of the fundamental steps in nasal plastic. Lateral osteotomy is usually performed to narrow the nasal dorsum or to close an open nose after a dorsal reduction. Of course, recovery from these procedures involve bruising, swelling, pain and bleeding. Extensive trauma with soft tissue injury results in prolonged postoperative complications leading to less than expected results. In order to decrease complication rates, surgeons seek to vary simple, reproducible techniques in search of the best outcome. Piezo, a surgical instrument that uses piezoelectric vibrations to cut bone tissue with a high degree of precision, has been used for rhinoplasty. Considering the few studies in the current literature, comparing this new device for nasal osteotomy with the traditional chisel method, we performed a literature review to try to establish the advantages and disadvantages of the procedure and which one is the most suitable for nasal osteotomy.

Keywords: Rhinoplasty; Piezo; Conventional osteotomy; Surgical technique; Nasal fractures.

<https://doi.org/10.1016/j.bjorl.2022.10.011>

Nasal valve: Clinical importance and surgical repairs

Aline Ouriques Freire Fernandes^a, Leila Freire Rego Lima^b, José Rildo Fernandes de Oliveira Filho^{c,*}

^a *Universidade de Araraquara, Araraquara, SP, Brazil*

^b *Faculdade de Medicina de São José do Rio Preto (FAMERP), São José do Rio Preto, SP, Brazil*

^c *Faculdade de Medicina de Ribeirão Preto (FMRP), Universidade de São Paulo (USP), Ribeirão Preto, SP, Brazil*
E-mail address: drjoserildo.face@gmail.com (J.R. de Oliveira Filho)

Rhinoplasty is the most performed cosmetic surgery on the face and the great challenge for the surgeon is to achieve the desired result, keeping the respiratory function of the nose unchanged, since the function should never be impaired due to aesthetics. For surgeons who perform rhinoplasties, knowledge of the structure and function of the nasal valve region is essential. The valve area is a complex structure, and differentiated into a cartilaginous and bone segment. Surgical treatment aimed at improving nasal valve function cannot follow a single reference, each case should be carefully examined in order to define the main flaw to be corrected: the narrow nasolabial angle, failure in the stability of the alar, function of the deficient internal nasal valve, the anterior septum asymmetrically symmetrically the airways causing obstruction or failing in structural and functional support to the alar cartilage complex and its junction with the upper lateral cartilages, the scroll area. We carried out a bibliographic review work evaluating the types of nasal valve insufficiency, how to perform the diagnosis, and the entire arsenal of surgical techniques that we have to treat nasal valve insufficiency. Thus, we can guide nose surgeons in the prevention of functional lesions in search of an aesthetic result and in the choice of treatment for the different anatomical, congenital or acquired alterations found in these patients.

Keywords: Rhinoplasty; Nasal valve failure; Surgical treatment.

<https://doi.org/10.1016/j.bjorl.2022.10.012>