

CONCHA BULLOSA- ENDOSCOPIC TURBINOPLASTY

Diana BECHEANU, Cristian-Dragos STEFANESCU, Catalina PIETROSANU, Irina-Gabriela IONITA, Andreea RUSESCU, Ruxandra Oana ALIUS, Anca Pantea STOIAN, Razvan HAINAROSIE

***Abstract:** Pneumatization of the middle turbinate (concha bullosa) can have negative consequences on nasal physiology. Surgical indication depends on the patients' symptoms and imaging. There are multiple techniques available, none of which have been consensually established as the best.*

***Keywords:** concha bullosa, endoscopy, turbinoplasty*

ENDOSCOPIC LASER ASSISTED CORDECTOMY. AN OVERVIEW

Andreea Nicoleta VLĂESCU, Cătălina PIETROȘANU, Irina-Gabriela IONIȚĂ, Andreea RUSESCU, Oana Ruxandra ALIUȘ, Cristian-Dragoș ȘTEFĂNESCU, Anca PANTEA STOIAN, Răzvan HAINĂROȘIE

***Abstract:** Endoscopic laser assisted cordectomy is a viable treatment method for premalignant and early stage malignant tumors of the vocal fold. The cordectomies are classified into six types according to the European Laryngological Society (ELS) guidelines. This classification allows the surgeries to fit into a type of precise excision and extension, which facilitates the study between different types of cordectomies, and oncologic and vocal outcomes after surgery.*

Using the laser instead of cold instruments has improved the results from both oncological and voice quality points of view..

The voice impact on the quality of life is a constant concern of the laryngological surgical field, but the main goal still the curative treatment.

***Keywords:** laser, cordectomy, early-stage carcinoma*

ENDOSCOPICAL APPROACH OF THE FRONTAL SINUS - AN OVERVIEW

Amanda WOLKOWSKI, Cătălina PIETROȘANU, Ruxandra Oana ALIUȘ, Irina IONIȚĂ, Cristian-Dragoș ȘTEFĂNESCU, Anca PANTEA STOIAN, Andreea RUSESCU, Răzvan HAINĂROȘIE

***Abstract:** The frontal sinus is less well pneumatized and is especially susceptible to inflammatory disease, making the endoscopic approach problematic. The concept of endonasal approach for reestablishing frontal sinus drainage involves preservation of bony boundaries of the frontal sinus, which doesn't apply in external classic frontoorbital procedures. There are 3 types of frontal sinus drainage according to Draf (types I-III). Draf I or frontal recess approach, consists of: uncinectomy, anterior ethmoidectomy, eventual frontal cells evacuation, incomplete resection of frontal sinus floor. Draf II or endoscopic frontal sinusotomy consists of: surgical maneuvers included in Draf I, frontal sinus floor resection, from the nasal septum (medial) to the lamina papyracea (lateral). Draf III or modified Lothrop procedure helps prevent naso-lacrimal duct stenosis provoked by the medial soft orbital tissue crush, due to lateral bony wall preservation. This procedure is fully intranasal and bilateral. The indications for each of the Draf procedures is different and may vary from failure of conservative surgery, acute sinusitis with complications, to tumour surgery and frontal sinus drainage in patients with severe complications such as mucoviscidosis, severe polyposis, Kartagener syndrome or asthma. Postoperative care is required, nasal packing and nasal irrigation with saline solution representing the basis care of the patient that underwent endoscopic sinus surgery. Although complication rates are low in endonasal sinus surgery, the main*

possible and severe complications can be: injury of the periorbital area with development of orbital hematoma, dural injury with possible CSF leakage and alteration of the smell sense.

Keywords: frontal sinus, endoscopic approach, invasive

ETHMOIDAL SURGERY: FROM OLD TO NEW

Ruxandra Oana ALIUȘ, Cătălina PIETROȘANU, Cristian-Dragoș ȘTEFĂNESCU, Irina-Gabriela IONIȚĂ, Andreea RUSESCU, Anca PANTEA STOIAN, Răzvan HAINĂROȘIE

Abstract: *Paranasal sinuses and their close relationship with vital structures such as the orbit and the brain have been mentioned from ancient times being relevant to various branches of science from the occult, mystical mummifying rituals to the modern study of anatomy and surgical techniques in ENT. This article aims to present in a succinct and systematised manner all methods pertinent to the surgical approach of the ethmoid sinuses. The entire argumentation revolves around advantages and disadvantages of the three consecrated approaches for the ethmoid cells: endonasal (using a rigid endoscope), transantral (by a sublabial incision) and external (by using an incision in the internal angle of the eye).*

Keywords: ethmoid cells, endoscopy, external approach

EXTERNAL APPROACH TECHNIQUES FOR THE MAXILLARY SINUS

Iuliana-Cosmina PARASCHIVESCU¹, Cătălina PIETROȘANU, Cristian-Dragoș ȘTEFĂNESCU, Irina-Gabriela IONIȚĂ, Andreea RUSESCU, Ruxandra Oana ALIUȘ, Anca PANTEA STOIAN, Răzvan HAINĂROȘIE

Abstract: *In the age of endoscopic surgery, the ENT surgeon must not eliminate the Caldwell-Luc approach of the maxillary sinus from his surgical arsenal. Even though more than 100 years ago it was being used in the treatment of refractory chronic maxillary sinusitis, nowadays this procedure has limited but well-established indications. It is used in malignant tumours of the maxillary sinus, multiple recurrences after endoscopic surgery of the sinus, pterygopalatine fossa approach, sinochoanal polyps. The Caldwell-Luc procedure offers the surgeon better visualisation of certain areas in the maxillary sinus and other surrounding anatomical regions, which is required when addressing certain types of diseases.*

Keywords: maxillary sinus, external approach

MINIMAL INVASIVE ENDOSCOPIC TECHNIQUE FOR ORBITAL DECOMPRESSION

PULPĂ Raluca Oana¹, RUSESCU Andreea, PIETROȘANU Cătălina, IONIȚĂ Irina , ALIUȘ Oana Ruxandra, Pantea Stoian Anca, ȘTEFĂNESCU Cristian-Dragoș, HAINĂROȘIE Răzvan

Abstract: *Orbital decompression is used to treating different conditions that can end in vision loss (orbital complications in cases of ethmoiditis, orbital hematoma after trauma or endoscopic sinus surgery, optic neuropathy, skull base tumors or sinonasal tumors with orbital extension) as well as to correcting severe disfigurement.*

The development of the optic endoscopic technologies and endoscopic tools opened the way to the transnasal approach of the orbit. We present our experience with the endoscopic orbital decompression, as well as the advantages and disadvantages of this technique.

Keywords: orbital decompression, endoscopic technique, minimal invasive

MINIMAL INVASIVE TONSILLECTOMY. TECHNIQUE OVERVIEW

DRAGALIN Georgeta, IONIȚĂ Irina-Gabriela, PIETROȘANU Cătălina, RUSESCU Andreea, ALIUȘ Ruxandra Oana¹, ȘTEFĂNESCU Cristian-Dragoș, PANTEA STOIAN Anca¹, HAINĂROȘIE Răzvan

Abstract: Tonsillectomy is one of the most frequent surgical intervention performed in children or adults. The indications for tonsillectomy are well defined, the surgical technologies are numerous. The surgeon should choose the appropriate technology for each patient according to the particularities of each case. The main purpose of our paper is to present the minimally invasive surgical techniques available today that can be used for hypertrophied tonsils. An overview of the recent data from the literature is made. Minimal invasive tonsillectomy can be performed with various surgical technologies. We present the advantages and disadvantages of monopolar cautery and coblation for tonsillectomy. There are different ways and procedures that can be used for tonsillectomy. The technique and technology used for a certain patient should be adapted to the local, regional, and systemic (general) particularities of that patient. The surgeon's comfort and knowledge are very important as well. No matter the technology chosen, one should always keep in mind the risk of bleeding

Keywords: minimal invasive tonsillectomy, coblation tonsillectomy, monopolar cautery.

MINIMALLY INVASIVE SURGERY FOR THE EXTERNAL APPROACH OF THE FRONTAL SINUS

MEIUȘ Alexandru, PIETROȘANU Cătălina, ALIUȘ Ruxandra Oana, IONIȚĂ Irina, RUSESCU Andreea, ȘTEFĂNESCU Cristian-Dragoș, PANTEA STOIAN Anca, MEIUȘ Teodora , HAINĂROȘIE Răzvan

Abstract: The frontal sinuses are located in the frontal bone above the orbits. Because of the anatomic proximity to the anterior skull base and the orbit, the pathologies of the frontal sinus can lead to life-threatening complications. Although nowadays new surgical techniques have been developed, like intranasal endoscopic frontal sinus approach, some pathologies still need open surgery. The minimally invasive external approaches are frontal sinus trephination and external frontoethmoidectomy. In this article, we will discuss the indications and the surgical technique of the minimally invasive external approaches of the frontal sinus.

Keywords: frontal sinus, external approach, minimally invasive

MODEL I NEOGLOTOPLASTY IN VOICE REHABILITATION OF THE TOTAL LARYNGECTOMIZED PATIENT

IONIȚĂ Irina-Gabriela, PIETROȘANU Cătălina, RUSESCU Andreea, ALIUȘ Ruxandra Oana, ȘTEFĂNESCU Cristian-Dragoș, PANTEA Stoian Anca , HAINĂROȘIE Răzvan

Abstract: aryngal cancer remains a problem for the health care system due to the high rates of mortality and morbidity on one side, and to the great costs for treatment on another side. Although prevention plays an important role in medical education of the population, many patients present late, in advanced stages of the disease, to the ENT specialist. In these cases large surgical resections are needed, and total laryngectomy is the surgical treatment of choice. The main purpose of the paper is

to present an original surgical reconstruction technique used during total laryngectomy for laryngeal cancer. The aim of this procedure is to improve the “voice” of the totally laryngectomized patient. We consider this model of neoglottoplasty to enhance the quality of the “voice” after total laryngectomy. This surgical technique should be applied in selected cases take into account both the local and general particularities of the patient. Voice rehabilitation after total laryngectomy is mandatory for a better social re-insertion of the patient. There are many different ways to provide voice rehabilitation from surgical procedures (like neoglottoplasty) to implantation of a voice prosthesis, to esophageal voice. We consider that model I neoglottoplasty associated with voice prosthesis improve the quality of the “voice” in totally laryngectomized patients, and offer good results in selected cases.

Keywords: total laryngectomy, neoglottoplasty, voice rehabilitation

MODEL II NEOGLOTOPLASTY IN VOICE REHABILITATION OF THE TOTAL LARYNGECTOMY PATIENTS

PIETROȘANU Cătălina, ALIUȘ Ruxandra Oana, RUSESCU Andreea, IONIȚĂ Irina, ȘTEFĂNESCU Cristian-Dragoș, PANTEA STOIAN Anca, HAINĂROȘIE Răzvan

Abstract: *Laryngeal cancer is a significant health problem today, as it accounts for up to 3% of total malignancies and 40% of head and neck malignancies. Despite general health policy, that aims to reduce exposure to risk factors such as smoking and alcohol consumption, it remains a challenge, especially in our country. Often patients become aware of the symptoms when the disease is already locally advanced, leaving little place for therapeutic options. Once the local extension of the disease dictates total laryngectomy as the only surgical option the patient will require a permanent tracheal canula and will be aphonic after the intervention. The interest in voice rehabilitation in these patients is an important problem for some years now. Many methods have been developed, starting from external laryngophones, esophageal voice and fonatory implants. These methods increase the patient’s quality of life and aid to a more natural insertion into society. This article aims to present a particular form of local reconstruction following total laryngectomy that will aid the patient in a faster, easier voice rehabilitation, also providing superior voice qualities, as it relies on a local conformational model similar to the natural one.*

Keywords: laryngeal carcinoma, total laryngectomy, neoglottoplasty

REVISION NASAL SEPTAL SURGERY TECHNIQUES

Iuliana-Cosmina PARASCHIVESCU, Viorel ZAINEA, Cătălina PIETROȘANU, Irina-Gabriela IONIȚĂ, Andreea RUSESCU, Ruxandra Oana ALIUȘ, Cristian-Dragoș ȘTEFĂNESCU, Răzvan HAINĂROȘIE

Abstract: *Nasal obstruction is one of the most frequent ENT complains, and the deviation of the nasal septum represents one of the most common causes of nasal blockage. Studies show that up to one-third of the population suffers from nasal obstruction and surgical treatment is performed on a quarter of those patients.[1]*

Keywords: revision surgery, septal deviation

PAROTID GLAND SIALOENDOSCOPY – TECHNIQUE OVERVIEW

PLEȘCĂ Vlad Ștefan, PIETROȘANU Cătălina, Rusescu Andreea, ALIUȘ Ruxandra Oana, IONIȚĂ Irina, ȘTEFĂNESCU Cristian-Dragoș, PANTEA STOIAN Anca¹, HAINĂROȘIE Răzvan

Abstract: Description of the salivary glands dates from the time of Hippocrates, with a real interest on the subject in the upcoming ages. The development of endoscopy by Karl Storz also led to the introduction of new instruments for investigating the parotid and submaxillary glands. The new procedure was called sialendoscopy, and it was improved by the European Sialendoscopy Training Centre (ESTC). This technique concerns mainly non-tumour lesions such as lithiasis, stenosis, anatomical modifications and other benign pathology. There are many advantages of this procedure, such as preserving the gland, avoiding lesions of nearby nerves, maintaining patients' aesthetics and ensuring a faster recovery. In this article, we will show the advantages and the technical procedure of the endoscopic treatment of the parotid gland. The procedure is performed under general or local anaesthesia with one-day hospitalisation. The main instrument is represented by the sialendoscope, which is introduced through the salivary papillae and examines the entire ducts. The modern times demand continuous improvement for medical health care. Although classic techniques have not lost their importance, the endoscopic approach of the parotid gland is gaining more importance in the treatment of benign lesions. The endoscopic approach of lithiasis or stenosis of the parotid glands leads to a rapid improvement in the patients' quality of life, making it a more and more frequently used technology.

Keywords: sialendoscopy, parotid gland, submaxillary gland, sialendoscope

PREOPERATIVE ASSESSMENT OF THE RESECTION MARGINS IN VOCAL FOLD CARCINOMA

RUSESCU Andreea, ZAINEA Viorel, PIETROȘANU Cătălina, IONIȚA Irina, ALIUȘ Oana Ruxandra, PANTEA STOIAN Anca Mihaela, ȘTEFĂNESCU Cristian-Dragoș, HAINĂROȘIE Răzvan

Abstract: One of the most critical afflictions which destabilize modern health society is represented by laryngeal cancer. In almost 95 % of cases, the discussion refers to an epithelial lesion. Thus the squamous cell carcinoma is the most extensive form of malignancy spread amongst laryngeal cancers.

When evaluating the patient, thorough understanding and knowledge on the history of the case, inspection, palpation of the neck, as well as performing indirect laryngoscopy, are primary key elements to conduct the diagnosis. To have an early diagnosis and to discover potential extension of the lesion endoscopic and imaging investigations are required to assess the margins of the lesion better and to conduct further therapeutic steps better.

Through this paper, we try to underline the main methods used in the preoperative assessment of the resection margins when discussing vocal fold carcinoma. These assessment methods of the resection margins were used before and while performing LASER CO₂ assisted cordectomies in determining the width that the resection must reach intraoperatively.

In our clinic, we got the opportunity to enhance our surgical experience by using videofibroscopy with Narrow Band Imaging (NBI) filters, videocontact endoscopy, as well as endoscopy that uses SPIES filters.

All these above-mentioned methods are non-invasive maneuvers and easily reproducible, without causing any additional discomfort to the patient. They bring important information about the structure of the vocal cord and the optimum amount of vocal fold that needs to be resected in order to not destroy essential healthy structure but enough to safely remove the entire affected region of the vocal fold.

It is important to mention that, although the specificity and sensitivity of these methods are high in betraying a diagnosis of malignancy they are not sufficient to ensure a positive diagnosis and do not replace the need for a proper biopsy and histopathological examination that give the diagnosis of certainty.

Keywords: vocal cord resection margins, preoperative assessment, NBI, SPIES, videocontact endoscopy

SEPTAL PERFORATIONS - CLOSING TECHNIQUES

Theodor Alexandru IRESCU-IARU, Cristian-Dragoș ȘTEFĂNESCU, Ruxandra Oana ALIUȘ, Cătălina PIETROȘANU, Irina-Gabriela IONIȚĂ, Andreea RUSESCU, Anca PANTEA STOIAN, Răzvan HAINĂROȘIE

Abstract: Septal perforations represent one of the most frequent complications of septoplasty. Not all septal perforations are symptomatic or causing impairment of nasal breathing. All through this condition seems harmless, it can cause severe nasal airflow disturbances and external nasal deformities. In cases of symptomatic patients, the ENT doctor must move forward and surgically close it. This intervention requires great skill from the surgeon due to increased local adhesions.

Keywords: septal, perforation, closing

SURGICAL STRATEGY FOR THE BETTER EXPOSURE OF THE PARAPHARYNGEAL SPACE

CATANĂ Mihai Eugen, ZAINEA Viorel, RUSESCU Andreea, PIETROȘANU Cătălina, IONIȚA Irina, ALIUȘ Oana Ruxandra, PANTEA Stoian Anca, ȘTEFĂNESCU Cristian-Dragoș, HAINĂROȘIE Răzvan

Abstract: One of the most particular regions to be approached in the cervicofacial area is known to be the parapharyngeal space, as it is situated in an area hard to access without important and extensive dissection and contains key anatomical elements such as the internal carotid artery, facial nerve and the internal jugular vein. In case of tumour structures found in this area that need to be excised, a good preoperative assessment of the clinical and imagistic characteristics of the mass in means of symptomatology, diameters, invasion or extension in the vicinity anatomical elements, a proper surgical approach is to be chosen in order to safely excise the tumour mass. The present paper aims to evaluate the surgical approach techniques used in parapharyngeal space pathology, therefore exposing the key elements that lead the surgeon into choosing between a transoral, transcervical, transparotidian, transmandibular or combined approach. The choice for the surgical approach depends mainly on the knowledge and experience of the surgeon as well as on the clinical and paraclinical characteristics of the abnormal structure to be excised. Practice shows that the transcervical approach is of choice in the case of the majority of pathological structures located in the parapharyngeal space, offering a good exposure of the region and allowing good visualization and adequate evaluation of the main risk structures encountered here.

Keywords: parapharyngeal space, surgical techniques, the surgical strategy.

TECHNOLOGIC OVERVIEW USED FOR ENDOSCOPIC OPENING OF THE LACRIMAL SAC

CREȚU Andrei Cristan, PIETROȘANU Cătălina, IONIȚĂ Irina-Gabriela, RUSESCU Andreea, ȘTEFĂNESCU Cristian-Dragoș, PANTEA STOIAN Anca, HAINĂROȘIE Răzvan

Abstract: The surgical management of dacryocystitis aims to achieve the lack of obstruction and the

drainage of the lacrimal sac directly into the nasal cavity using the endoscopic dacryocystorhinostomy. The purpose of this paper is to exemplify the technique of endoscopic dacryocystorhinostomy. The challenge lies in the discovery and opening of the lacrimal sac, due to the complex regional anatomical structures. The diagnosis is based on the clinical examination and the CT imaging. The endonasal endoscopic approach for dacryocystorhinostomy has good surgical outcomes. The purpose of endoscopic dacryocystorhinostomy is to realise communication between the lacrimal sac and opening of the lacrimal duct into the nasal cavity. The endonasal endoscopic technique used to perform the dacryocystorhinostomy is of real importance due to the lower frequency of intraoperative trauma, decreased surgical time, and the absence of possible scarring marks following an external approach.

Keywords: *dacryocystorhinostomy, endonasal endoscopic, lacrimal sac*

TRANSNASAL ENDOSCOPIC DECOMPRESSION OF THE OPTIC NERVE

MEIUȘ Teodora, PIETROȘANU Cătălina, ALIUȘ Ruxandra Oana, IONIȚĂ Irina, ȘTEFĂNESCU Cristian-Dragoș, RUSESCU Andreea, PANTEA STOIAN Anca, MEIUȘ Aexandru, HAINĂROȘIE Răzvan

Abstract: *Optic nerve compressive neuropathy represents damage to the optic nerve caused by inflammatory processes, infections, tumours or trauma. These lesions compress the nerve leading to optic disc swelling and progressive visual loss. A thorough anamnesis and clinical examination of the patient can lead to a quick diagnosis and also can reveal the etiology of the disease. The timing of the surgery is controversial, but most surgeons perform decompression as soon as possible after the diagnosis is established. Over the past decade, with the development of technology, endoscopic procedures became more popular and started being used in the treatment of optic nerve compressive neuropathy. In this article, we will present the surgical steps of the transnasal endoscopic decompression of the optic nerve performed in our clinic.*

Keywords: *optic nerve, decompression, endoscopy*