

## CARCINOMA ASSOCIATED WITH HUGE SPHENOIDAL MUCOCELE

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**Abstract:** *Carcinomas of the sphenoid sinus are exceptionally rare and produce deep constant headache, radiological signs of sphenoid sinus destruction and extraocular paralysis, usually without cervical lymph node metastasis. Typically, mucoceles are asymptomatic, and they are unintentionally identified after computed tomography scan or magnetic resonance imaging of the maxillofacial area performed for other pathologic issues. This paper aims to illustrate two different histologic lesions within the same sphenoid sinus. We discuss both the importance of the association of these two clinical and histologic entities and the clinical and therapeutic problems related both to sphenoid mucocele and to sphenoid carcinoma. Today, the gold standard for sphenoid sinus carcinoma diagnosis and treatment is the endoscopic approach because it allows a good visualization of the sphenoid sinus and a higher compliance from the patient. Computed tomography and magnetic resonance imaging can reveal a tumor of the sphenoid sinus. Total resection of these tumors is very difficult due to their topography and proximity to the carotid artery, optic nerves, cavernous sinus and sella. After surgery, radiotherapy and chemotherapy are fundamentally.*

**Keywords:** *sphenoid sinus, mucocele, carcinoma.*

## KEYPOINT RADIOLOGY IN JUVENILE ANGIOFIBROMA SURGERY

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**Abstract:** *The nasopharyngeal fibroma is a benign, invasive tumour, well-vascularized, found almost exclusively at male patients at puberty, with an increased frequency between 15 and 17 years. This tumour has specific imaging signs which guide the diagnosis and help estimate its extent to better expose the tumour for biopsy and ablation. This article aims to discuss the imaging characteristics of CT-scan and MRI. For the diagnosis of the tumour, the radiological examination of the base of the skull and cavum have particular importance. Simple or contrast-enhanced radiography specifies the site and extent of the tumour. It can look an enlargement of the prevertebral space, the veiling of the sphenoid sinus, structural changes at the top of the rock or blurring of the contours of various cranial orifices in right middle brain lodge. Also, imaging allows the differentiation of a primitive tumour from a secondary tumour that invades the pharynx. Nasopharyngeal angiofibroma is a benign tumour with malignant evolution due to the high potential of development and invasion of neighbouring structures and spaces. The primary method of treatment of the nasopharyngeal angiofibroma is surgical removal. Unlike the removal of other benign tumours of this area,*

*the removal of nasopharyngeal angiofibroma is accompanied by the risk of massive bleeding, sometimes even lethal, all based on the well-vascularization of nasopharyngeal angiofibroma. Massive intraoperative bleeding points to a thorough preoperative preparation, aimed at minimizing losses blood when angiofibroma is removed.*

**Keyword:** *juvenile angiofibroma, radiology keypoints, endoscopic surgery*

## **PARAPHARYNGEAL TUMOURS, SURGICAL STRATEGY IN TRANSORAL APPROACH**

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**Abstract:** *The parapharyngeal space is a complex region considered one of the deep neck spaces.*

*Due to the large amount the vascular and nervous structures the tumors that develop here have a wide range of histopathologic aspects. The approach of the parapharyngeal space is challenging even for experienced surgeons. Thus many surgical approaches have been described to allow the surgeon proper access to the tumor and the risk elements. The endoscopic assisted transoral approach of parapharyngeal tumors is considered suitable for benign tumors located in the medial portion of the carotid. This approach provides a direct and magnified view of the lesion making possible a good control of the tip of the instrument and safe dissection maneuvers.*

**Keywords:** *parapharyngeal space tumor, transoral approach, endoscopic.*

## **RADIOLOGICAL KEYMARKS IN INVERTED PAPILLOMA SURGERY**

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**Abstract:** *Introduction: An inverted papilloma is a benign but invasive tumour that appears on clinical examinations as a pink mass that can manifest with nonspecific symptoms such as sinus pain, bleeding or nasal obstruction. Methods: In this paper, the authors chose to discuss the different ways of investigating this pathology through radiological means in order to achieve the best and most beneficial results. Both CT scanning and MR imaging have been taken into consideration, each with its advantages, with the sole purpose of assessing the extent of the tumour for the benefit of further treatment. Results: Since recurrence is one of the most important characteristics of this sinonasal disease, it is of great importance to investigate it properly and be able to resect it completely. It has been formerly stated that*

*improper resection of this mass can be a causal factor for its recurrence. Conclusions: Even though at the time of the examination this tumour can be quite spread, it is possible through present medical investigations to assess it correctly and establish the best course of treatment for each case of inverted papilloma.*

**Keywords:** *inverted papilloma, papilloma surgery, recurrence.*

## **REFINED OPTICS IN VOCAL CORD SURGERY**

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**Abstract:** *The laryngeal examination is a crucial stage in the management of vocal cord lesions, for both pre-and postoperative periods and have developed very much over the last years 40 years. The base techniques of this type of examination involved initially only the indirect laryngoscopy that used the old and classic head and laryngeal mirror, but no optical technology at all. In order to evolve and to find numerous modern and more comfortable alternatives of diagnosis and even treatment, ENT (ear-nosethroat) doctors, together with specialised physicists are using nowadays refined optics that can provide multiple benefits and excellent outcomes. This paper aims to describe the advantages of such refined optics regarding the vocal cord diagnosis, surgery and follow up from the most common to oncologic laryngeal pathologies. According to our experience and our strategy, it is always fundamental to be “one step ahead of the lesion”. Laryngeal lesions are better-visualised thanks to the modern videofibrosopes endoscopes microscopes coupled with refined optics. This kind of tools can be purchased and can be used even for office-based procedures. With the use of them, one can obtain even more promising results in the near future. The price, the quite long learning curve in evaluating lesions, and the maintenance of such units could represent the main disadvantages of these refined optics. Refined optics are very efficient and have excellent outcomes in diagnosing, treating and following up a high range of laryngeal conditions, from benign laryngeal tumours to premalignant, early and medial stage laryngeal cancers. They also received the name “the optical biopsies” due to their high accuracy and link between diagnosis and histopathological results. Although indirect laryngoscopy and videofibroscope are still widely used all around the world, this technology takes endoscopy to a whole new level. It facilitates the surgeon’s work by visualising invisible, decisive vascular elements during the simple white light endoscopy (WLE). It has proven to be very helpful for ENT specialists. Further investigations are needed to achieve even better and effective results.*

**Keywords:** *surgery, refined optics, NBI, larynx.*

## SPHENOIDAL MUCOCELE MANAGEMENT

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**Abstract:** *A paranasal sinus mucocele represents a benign cystic lesion that occurs due to the obstruction of sinus drainage caused by inflammation, mass lesions or trauma. The diagnosis is based on the ENT examination completed by imaging examinations. The treatment of choice for sphenoid mucoceles is endoscopic sphenoidotomy with the evacuation of the cystic lesion. We will present the case of a 20-year-old male patient admitted into our clinic, diagnosed with sphenoidal mucocele and transverse sinus thrombosis, that underwent endoscopically assisted sphenoidotomy with the resection of the lesion.*

**Keywords:** *sphenoid mucocele, endoscopy, management.*

## SURGERY IN RESIDUAL OR RECURRENT JUVENILE ANGIOFIBROMA

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**Abstract:** *Juvenile nasopharyngeal angiofibroma is a hypervascular tumour that appears in young adolescent male patients. Although being benign and having no apparent cause, it can have an aggressive extension to the surrounding areas. The main symptoms patients address to the doctor are progressive nasal obstruction and recurrent unilateral epistaxis. The paper will focus on the recurrent and residual cases of juvenile angiofibroma and their management and treatment. Juvenile nasopharyngeal angiofibroma is usually confirmed by imaging techniques, as a biopsy has a very high risk of haemorrhage. Postoperative imaging scan should be done within 48-72 hours and, if there are signs of residual tumour, the second surgery should be performed in approximately a week to avoid scarring formation. The main approach in revision surgery is endoscopic, but, in large angiofibromas, open and combined approaches can be used: midface degloving, transpalatal, transfacial through lateral rhinotomy, and Le Fort I osteotomy, or infratemporal type D. Adjuvant radiation therapy can be helpful, although having a risk of malignant transformation, while chemotherapy and hormonal therapy are inefficient. Although being rare, juvenile angiofibroma should be suspected in young male adolescent patients with unilateral nasal obstruction and epistaxis. Despite recent advances in endoscopic and open surgery, there is still a high recurrence and residual tumour rate, mostly due to incomplete resection during surgery.*

**Keywords:** *juvenile angiofibroma, benign tumour, nasosinus tumour, endoscopic surgery.*

## SURGICAL OPTICS IN LARYNGEAL PAPILOMATOSIS

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**Abstract:** *Laryngeal papillomatosis is an aggressive, recurring, potentially fatal ailment and a real challenge for the ENT surgeon. It is caused by the human papilloma virus (HPV) and encountered both in pediatric and adult population. Current treatment consists of excision of the epithelial lesions using CO2 laser, while maintaining the anatomical structure of the vocal cords. The development of refined optical procedures such as narrow band imaging (NBI) and Storz Professional Image Enhancement System (SPIES) has improved disease management. The authors wish to present the approach utilized in our clinic – the one step ahead of the lesion – which requires optical biopsies for presurgical mapping and also in the delineation of healthy tissue during the procedure, in order to achieve a complete excision.*

**Keywords:** *papillomatosis, NBI, SPIES, optical biopsies*

## UNCOMMON PARAPHARYNGEAL COLLECTION. SURGICAL STRATEGY

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**Abstract:** *The parapharyngeal space is one of the eleven deep neck spaces between the fascial layers.*

*It is a challenging anatomic region due to its location but also due to the vital structures which it contains.*

*Due to the complexity of its content, diversified pathologies can arise in this space, from tumours to cysts and abscesses. The surgical approaches of these pathologies are transoral, transcervical, transparotidtranscervical and transcervical-transmandibular. In our clinic, we use the endoscopic guided transoral approach for benign parapharyngeal masses or collections. A male patient was admitted in our clinic with a parapharyngeal cystic lesion. Using the endoscopic assisted transoral approach, the cyst was safely removed with no cosmetic deformities and low risk of complications.*

**Keywords:** *parapharyngeal space, cyst, transoral approach.*

## VOCAL FOLD PAPILOMATOSIS: PRESENT AND FUTURE

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**Abstract:** *Recurrent respiratory papillomatosis (RRP) is a great challenge for most otorhinolaryngologists to its recurrent and potentially malignant character. It affects all categories of patients, and it is the most common benign neoplasm of the voice box. The aim of our paper is to present the therapeutical options ENT surgeons should have when dealing with cases of RRP. There are multiple ways for the ENT surgeon to approach such RRP cases. Firstly, it is very important not to misdiagnose the lesions. In this case, the refined optics/optical biopsies may play an important role in detecting such papillomatous lesions. These are also very useful in the follow-up protocols. The surgical management remains the gold standard, and it includes CO2 laser vaporisation, microdebrider, coblation, cold instruments, office-based procedures, like pulsed dye potassium-titanyl-phosphate (KTP) laser. Refined optics are great tools for diagnostic and follow up of RRP. Adjuvant therapies have good outcomes and are ideal for vocal fold tissue sparing. The surgeons must always be aware of the unpredictable character of RRP. So far, the surgical outcomes using the so-called “one step ahead of the lesion” strategy were satisfying. The CO2 laser remains the gold standard, but the best results are obtained when surgery is coupled with adjuvant therapies. The aim for all the ENTsurgeons is to stop malignant transformation and the recurrence of RRP by being as conservative/nonradical as possible.*

**Keywords:** *larynx, papillomatosis, HPV.*