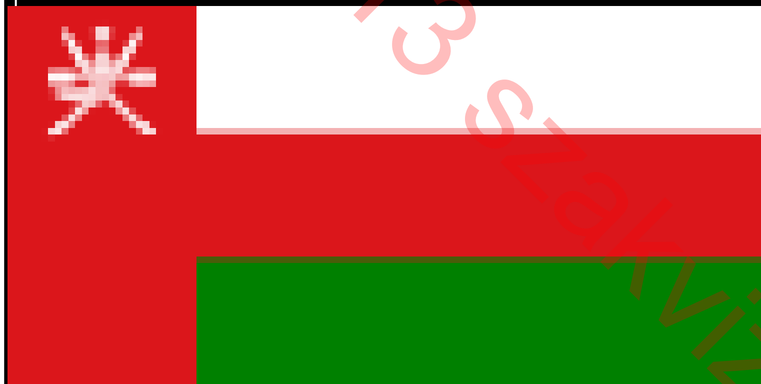
FESS surgical technique – tips and hints

Prof. Dr. Imre Gerlinger





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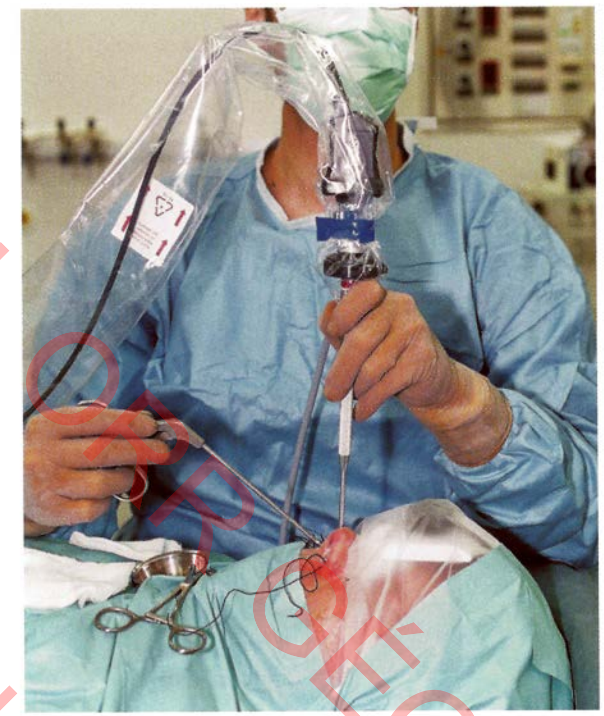
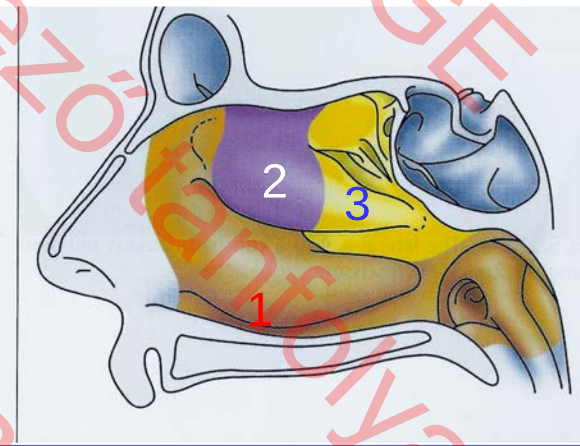
ÉDESNEMES
Nettó tömeg: 100 g


Importance of cadaver dissection

- Position of the head
- Anaesthesia of the mucous membrane
- Positioning of the endoscope and the sucker
- Mucous membrane on the endoscope = bleeding
- Practising nasal endoscopy
- Practising sinoscopy





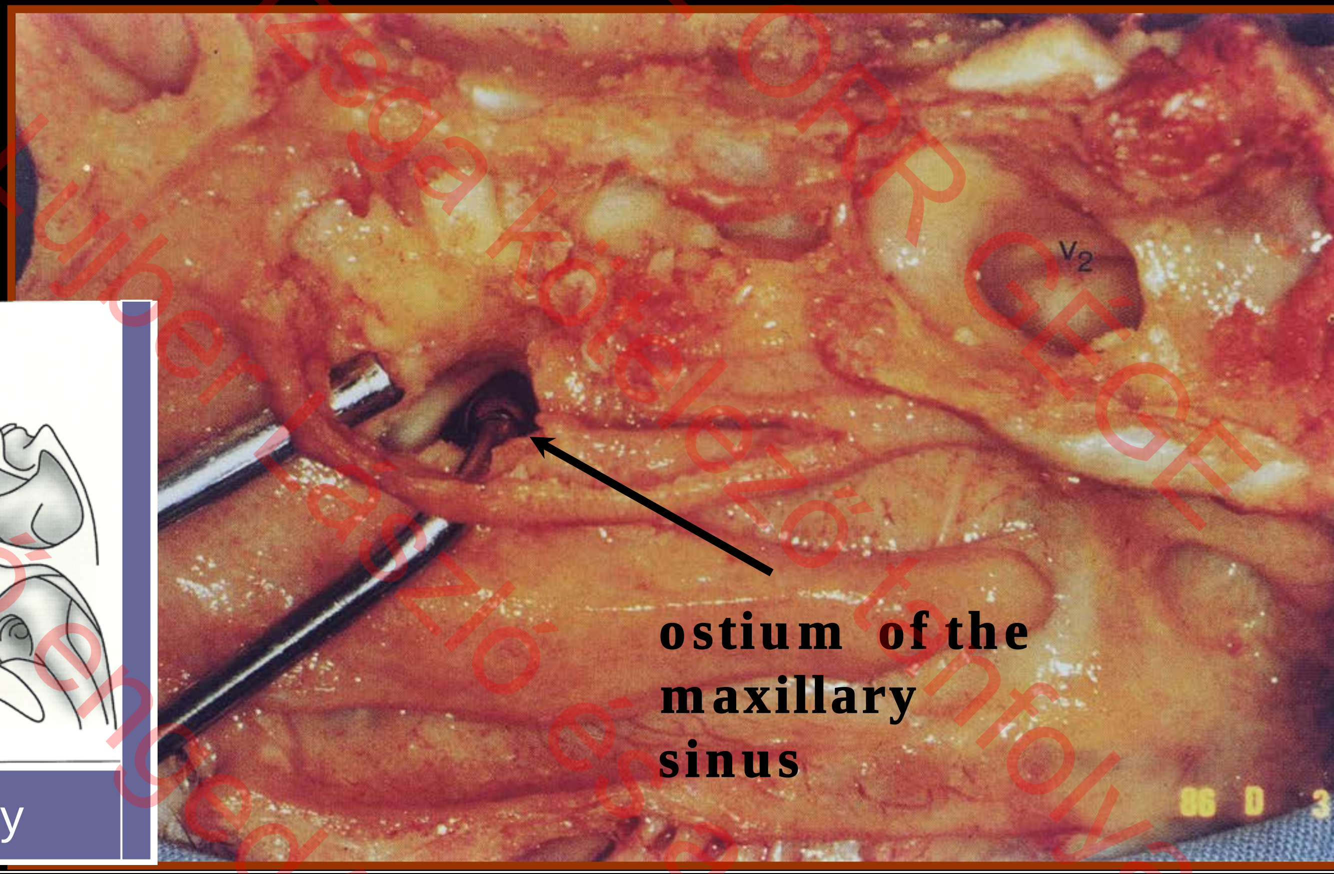
Preoperative tricks and hints

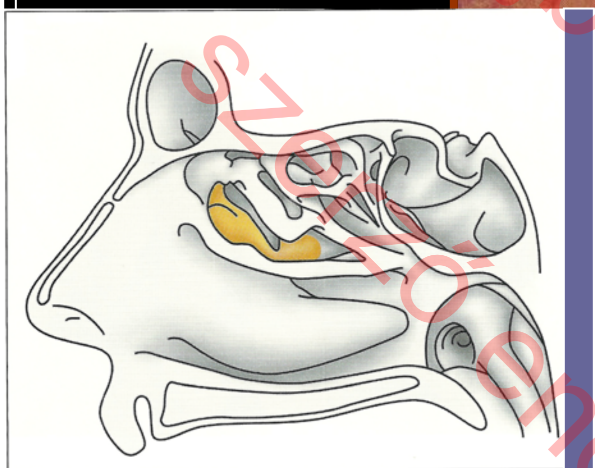
- Never operate without CT scan
- The notes should be in the operating theatre
- Do not rush, CT checklist ! Role of vasoconstrictors !
- Appreciate the efforts of both the anaesthetist and the theatre staff !
- Bradycardia decreases the „cardiac output” , much less bleeding.
- 1 tablet beta blocker one day prior to surgery and just before surgery (perifférial vasodilatation)
- Do not cover the patient’s eye, collect all the tissues which are removed

Surgical hints

- Anatomical knowledge, CT ! Forget about „pull and tear” technique”.
- Check/ballotate the eyeball regularly!
- Keep distance with the endoscope!
- Keep the instruments in front of the tip of the endoscope
- Anatomical landmarks!
- In case of serious bleeding: STOP! Do not remove anything!
- O^o endoscope mostly (occasionally 45^o)
- Medial-inferior direction
- Respect the ethmoidal anterior artery
- Respect the mucosa of the frontal recess
- Gentle palpation with the curved probe/J curette! Do not stick !
- Keep the integrity of the olfactory mucosa! (gently lateralisation of the MT at the of the procedure)

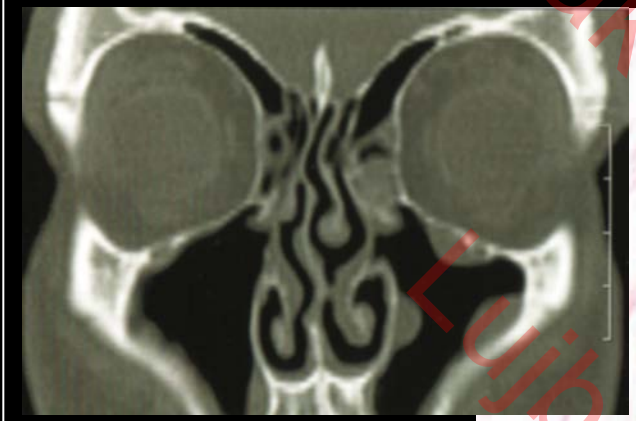
Infundibulotomy
(resection of the uncinate process)

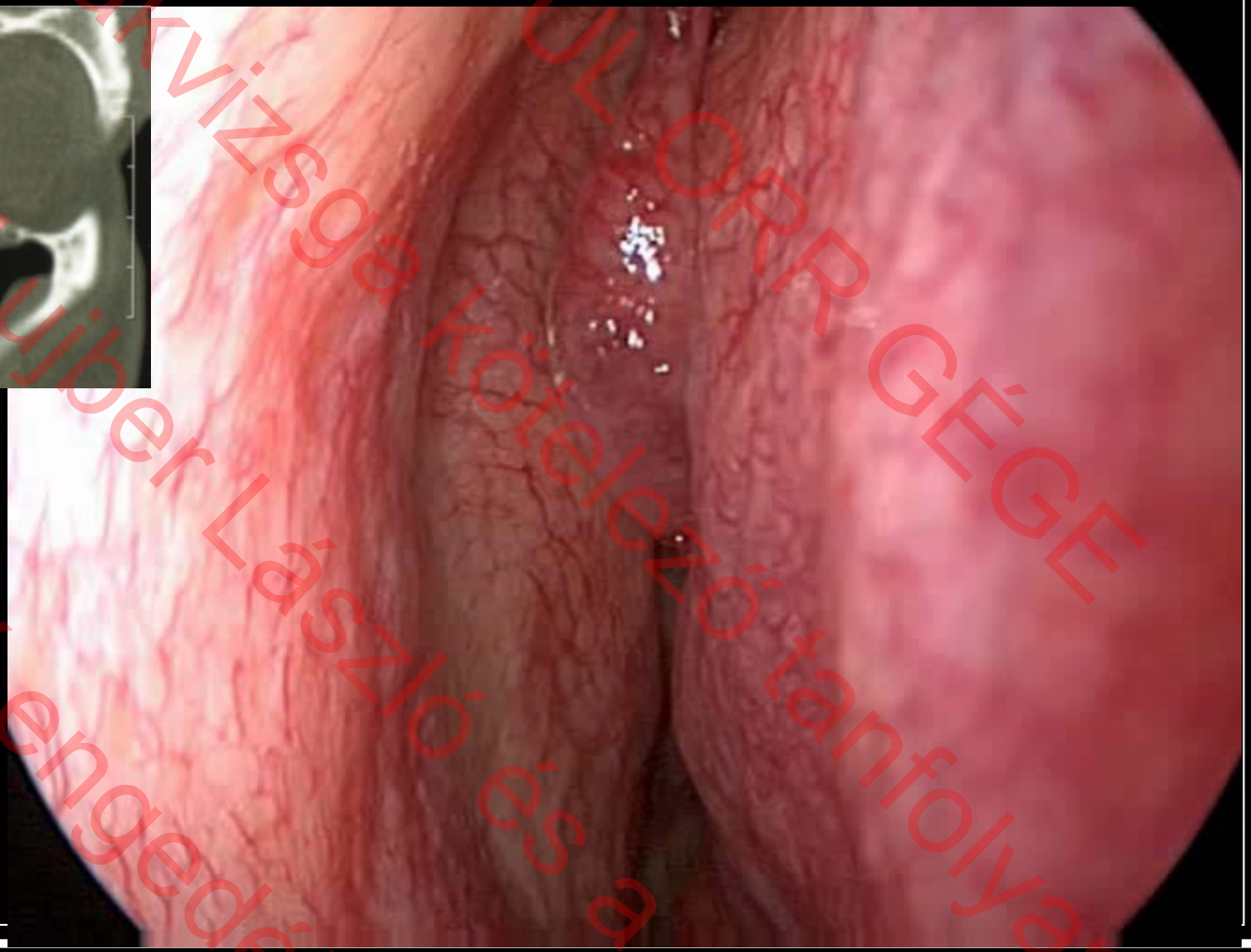




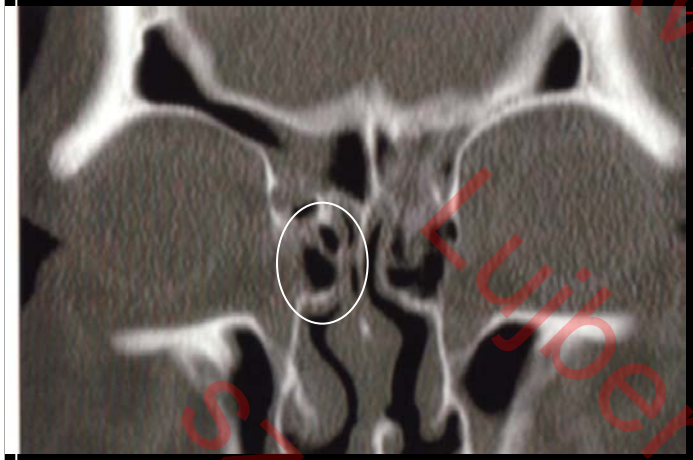
infundibulotomy

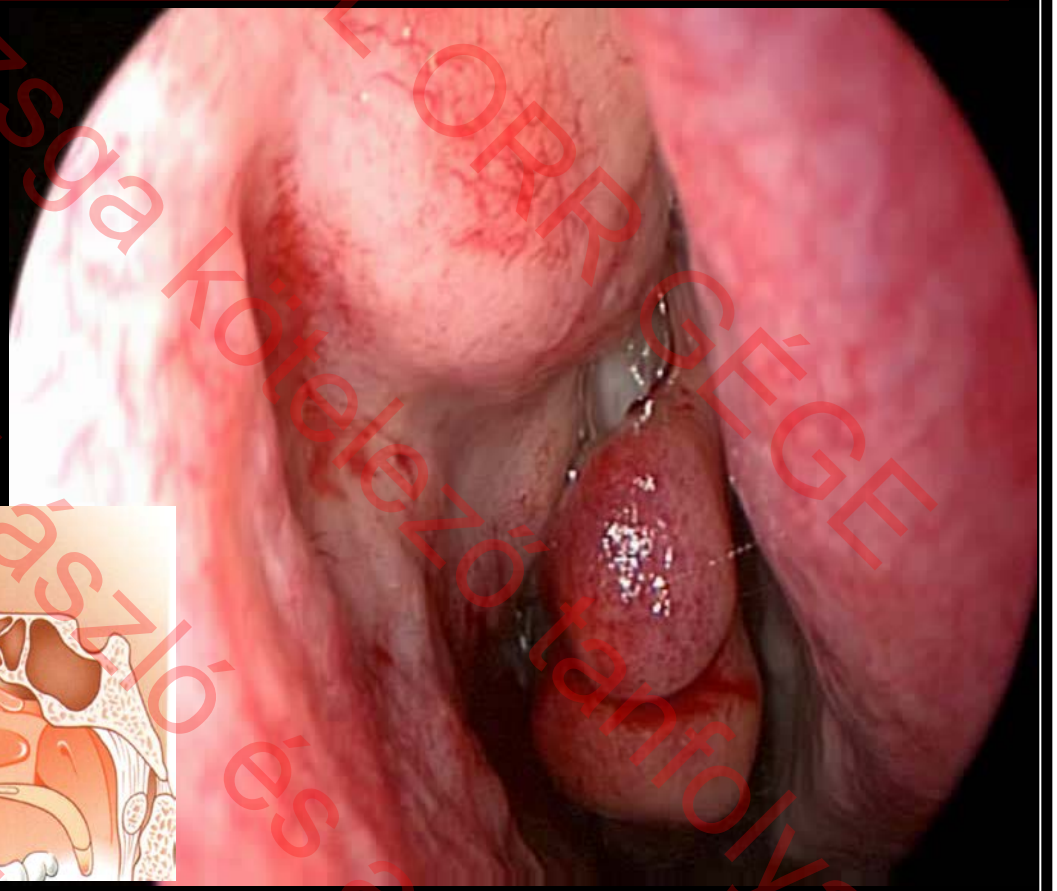
Infundibulotomy

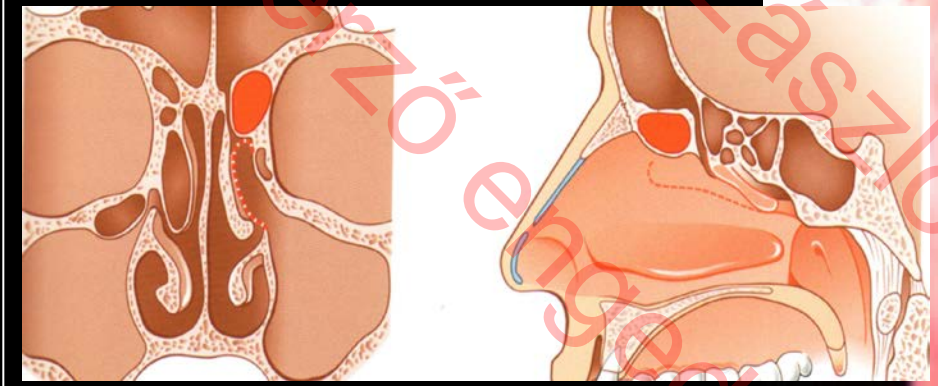




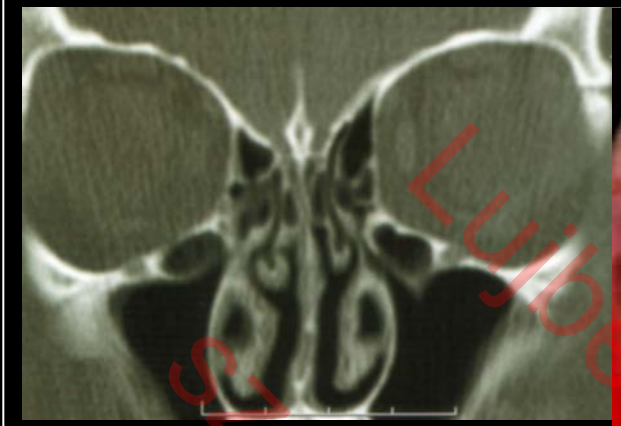
Infundibulotomy, opening of the agger nasi cell

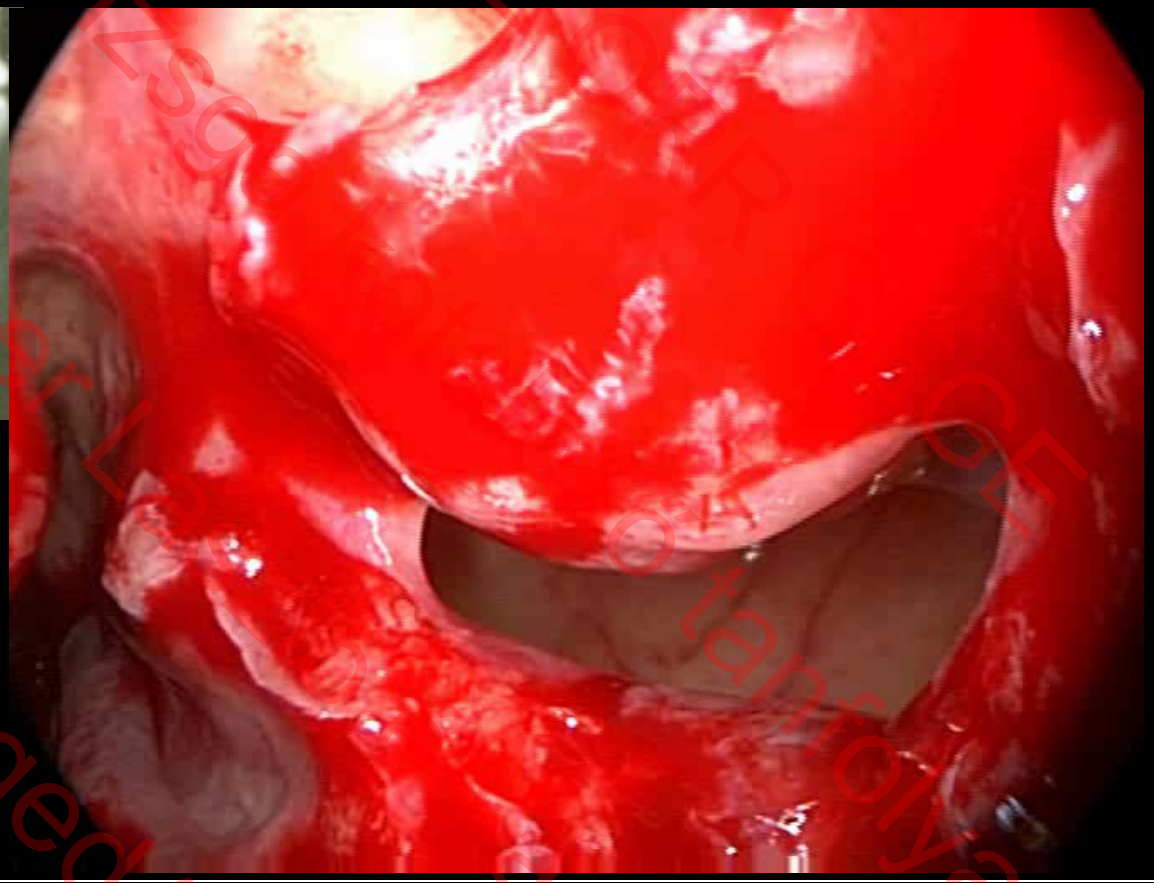




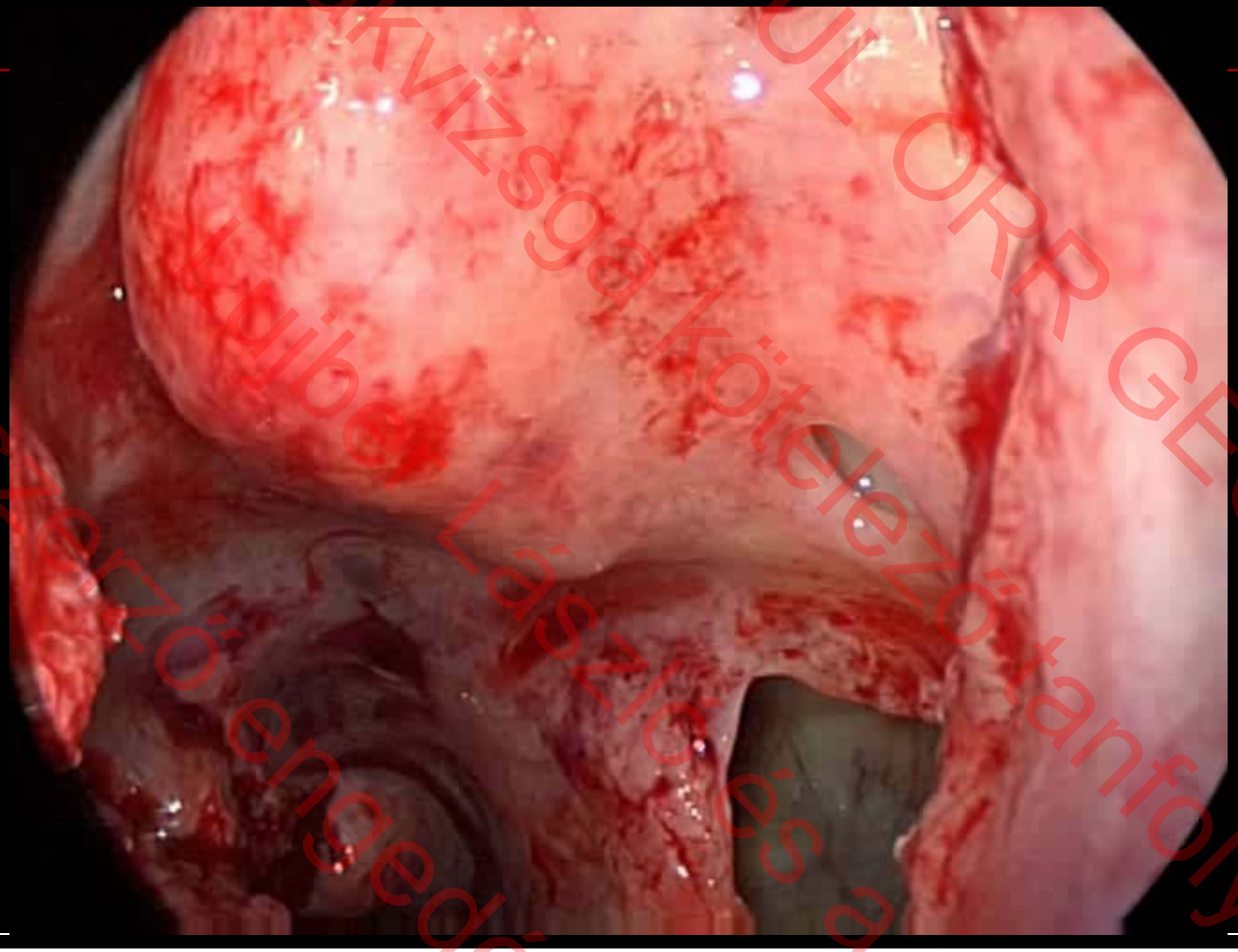


Infraorbital (Haller) cell

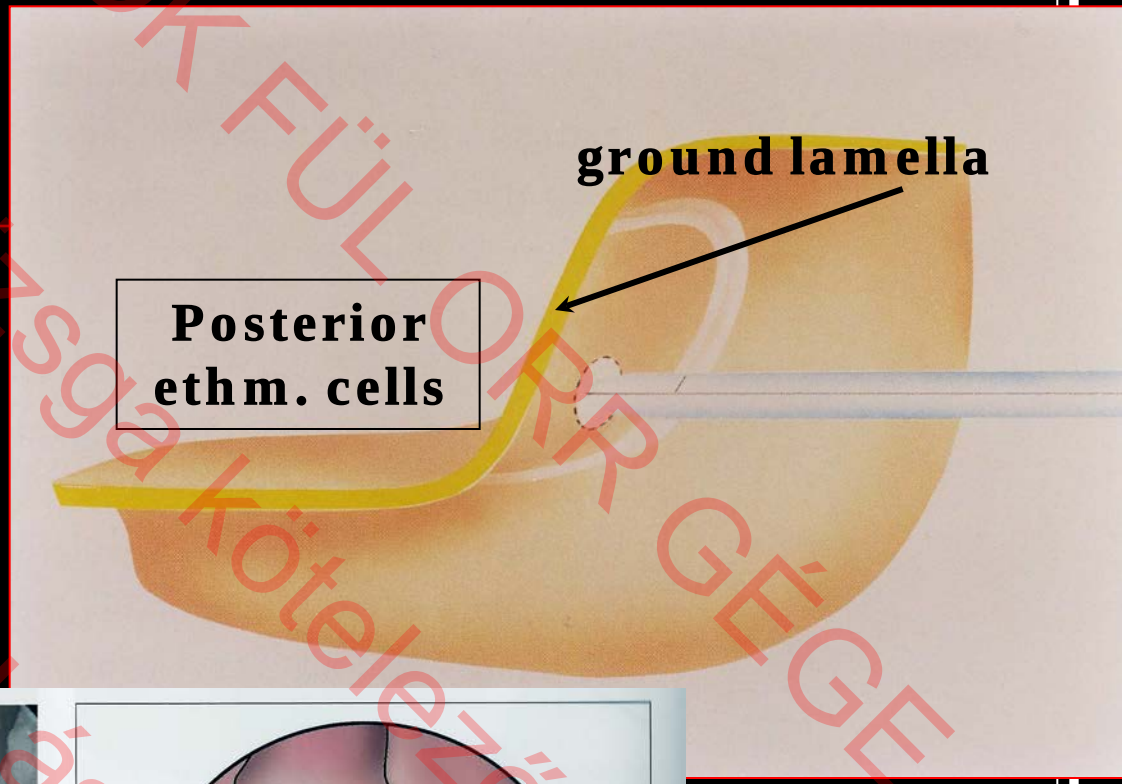


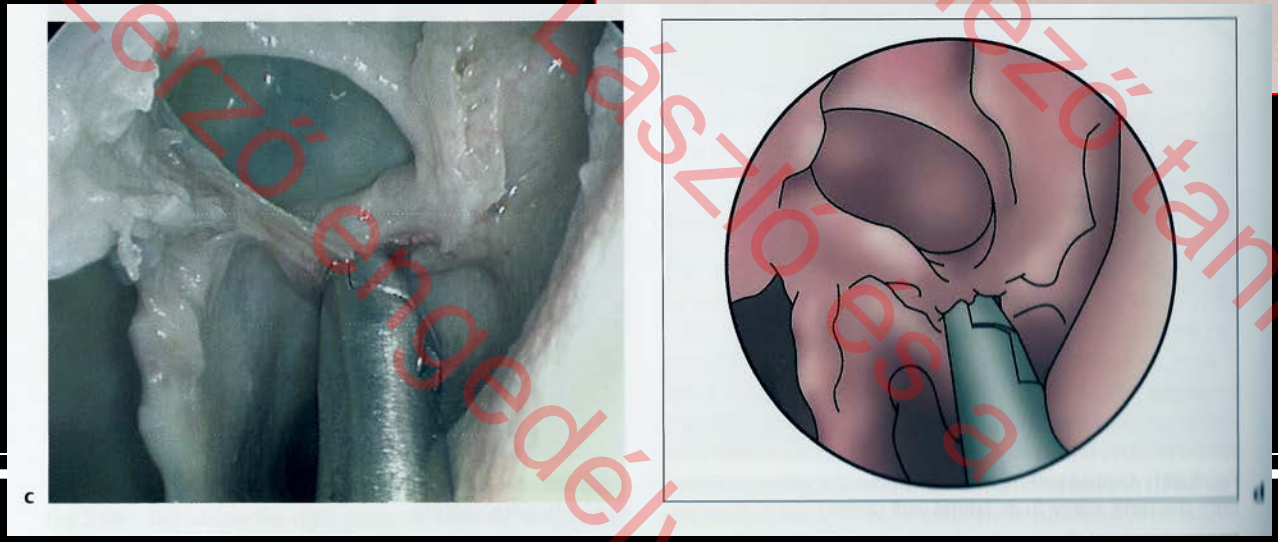


Partial anterior ethmoidectomy

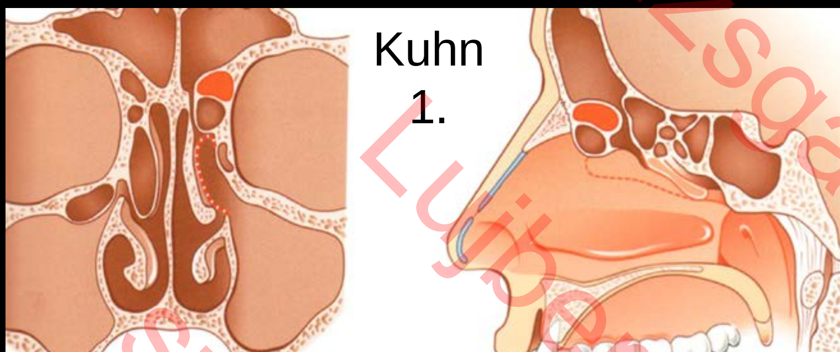


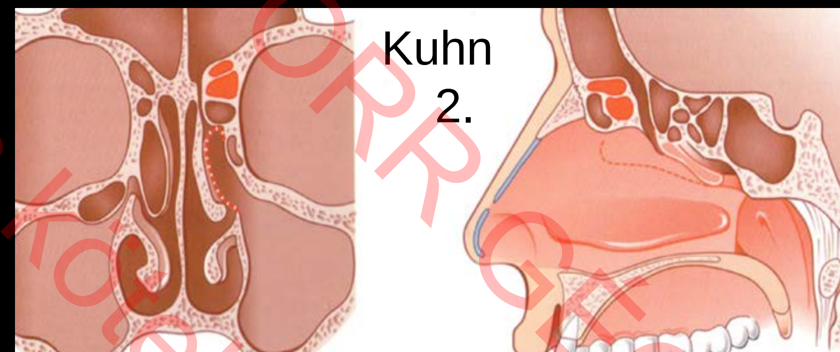
Perforation of the ground lamella (posterior ethmoidectomy)

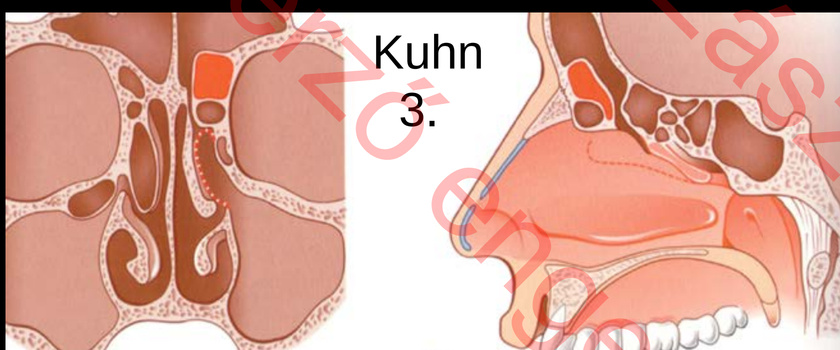


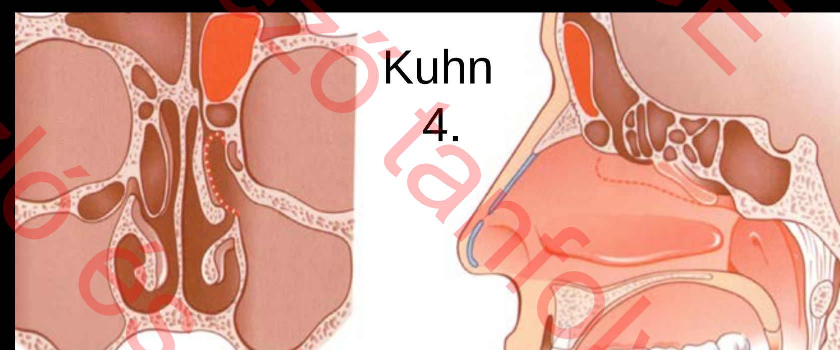


Frontoethmoidal cells (Kuhn 1-4.)



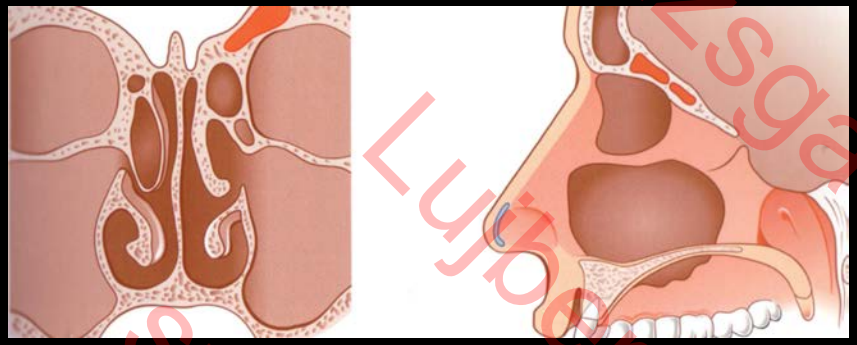




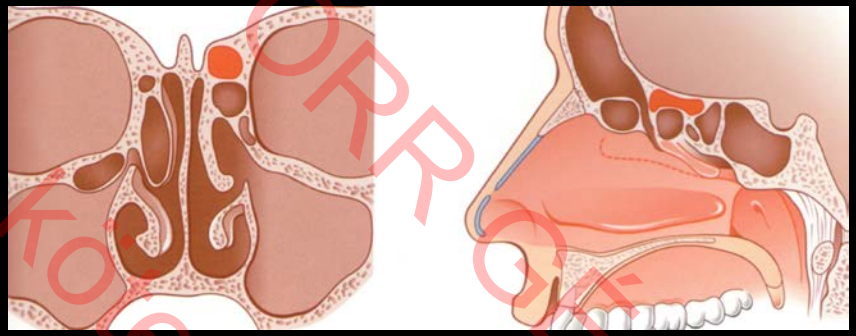


Further frontoethmoidal cells

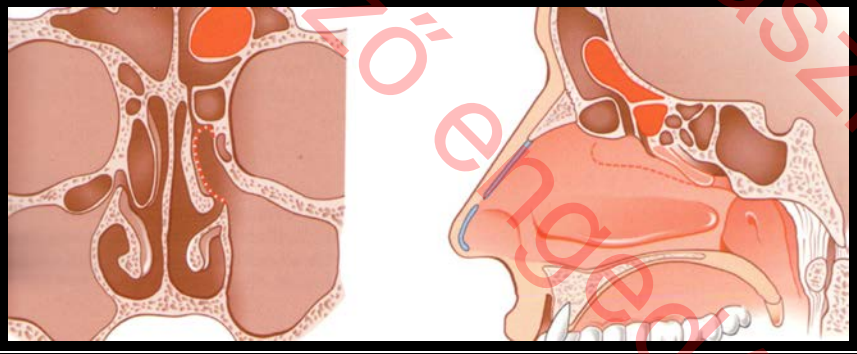
supraorbitalis



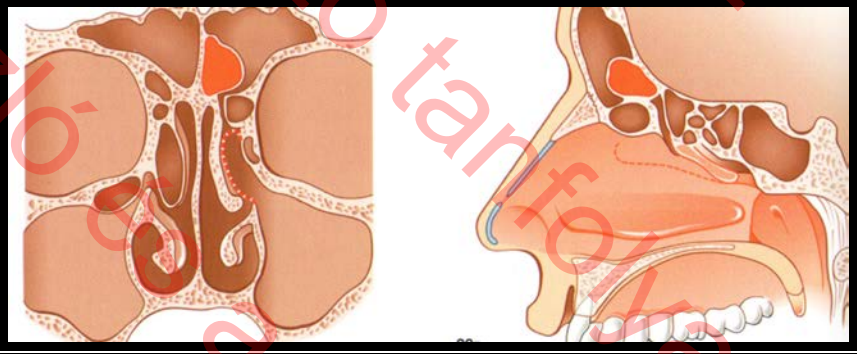
suprabullaris



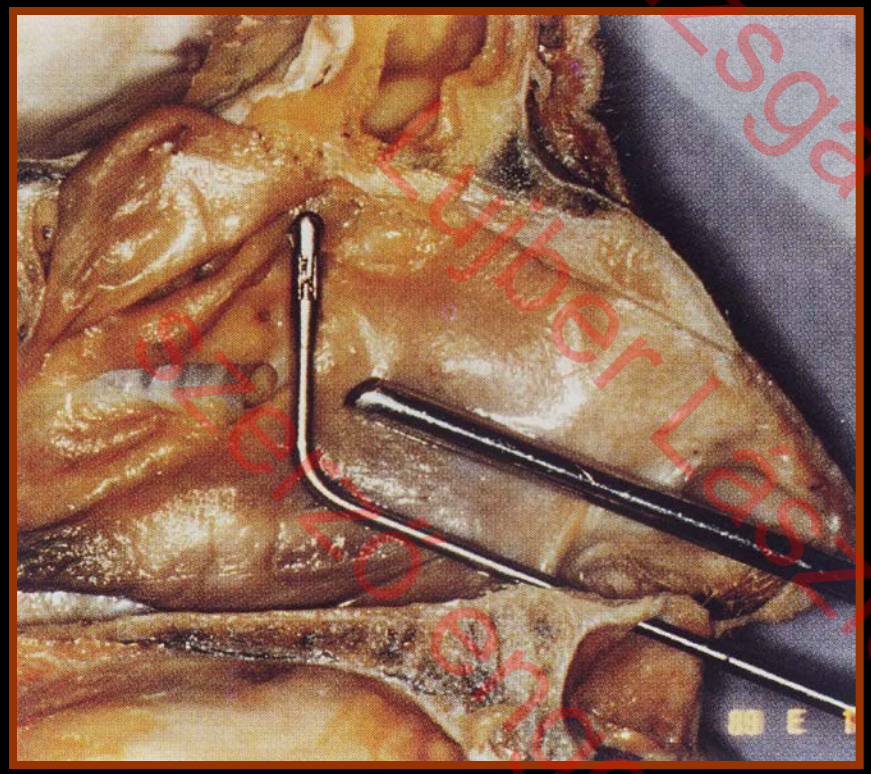
bulla frontalis

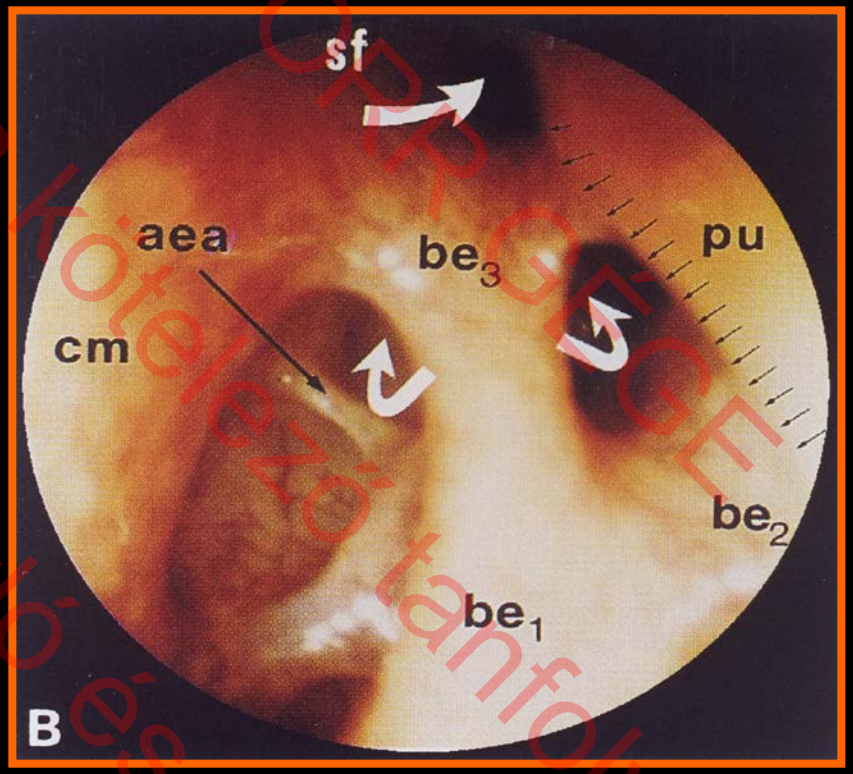


sinus interfrontalis

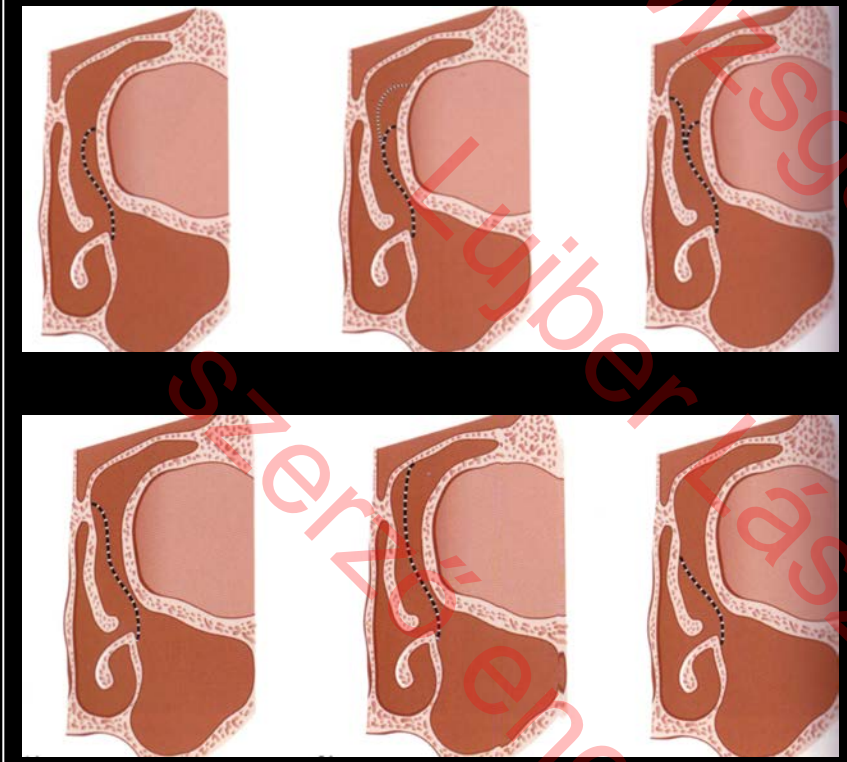


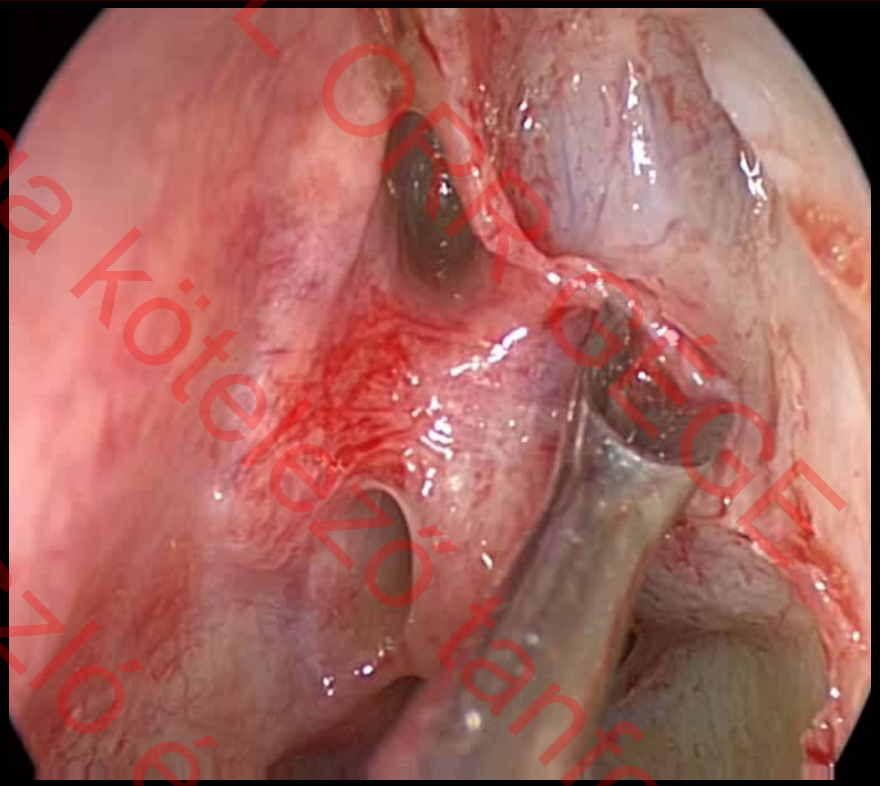
Exploration of the frontal recess



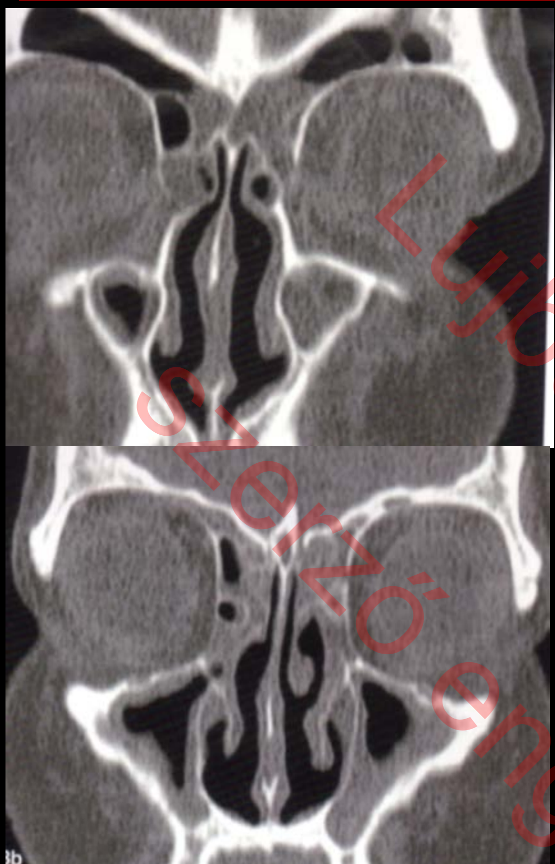


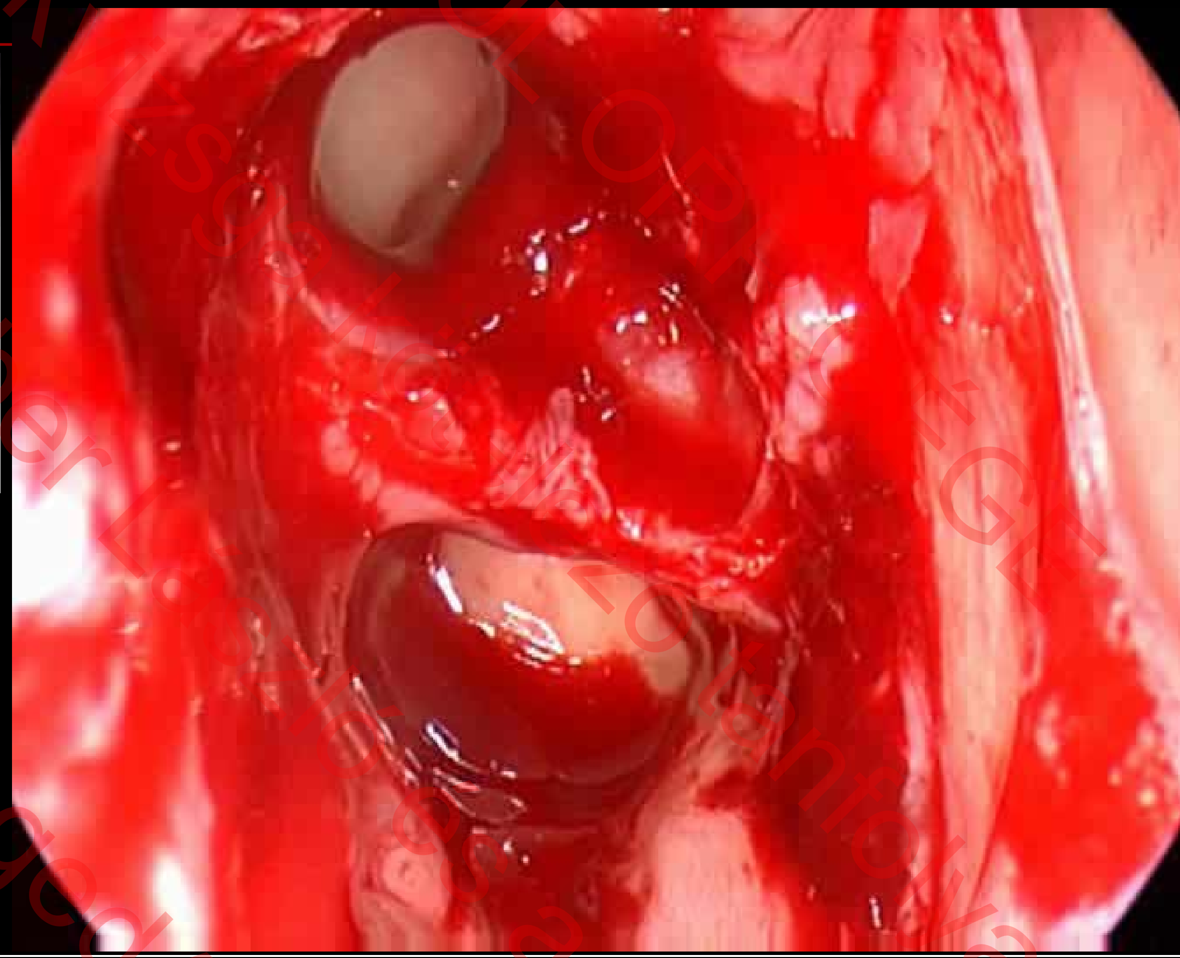
Exploration of the natural ostium of the frontal recess, removal of terminal recess



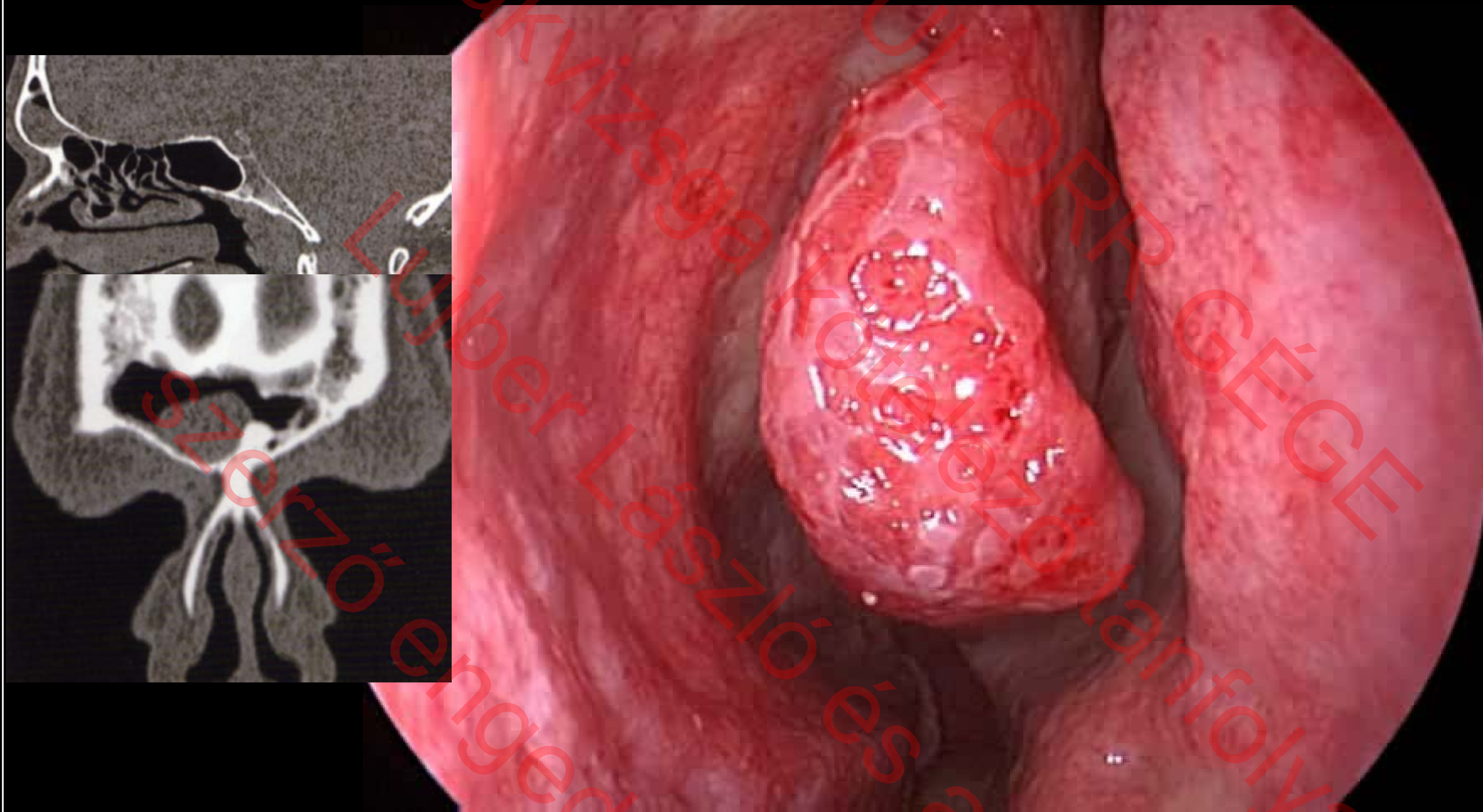


Fronto-ethmoidectomy (revision)
Agger nasi és Kuhn 1. cells

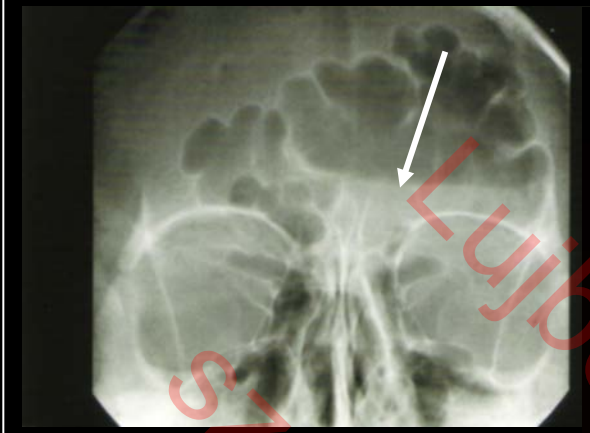


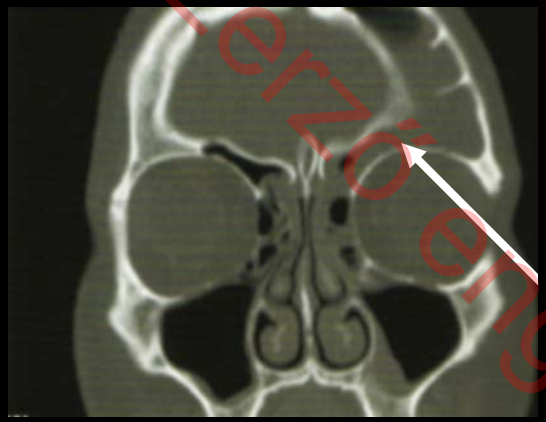


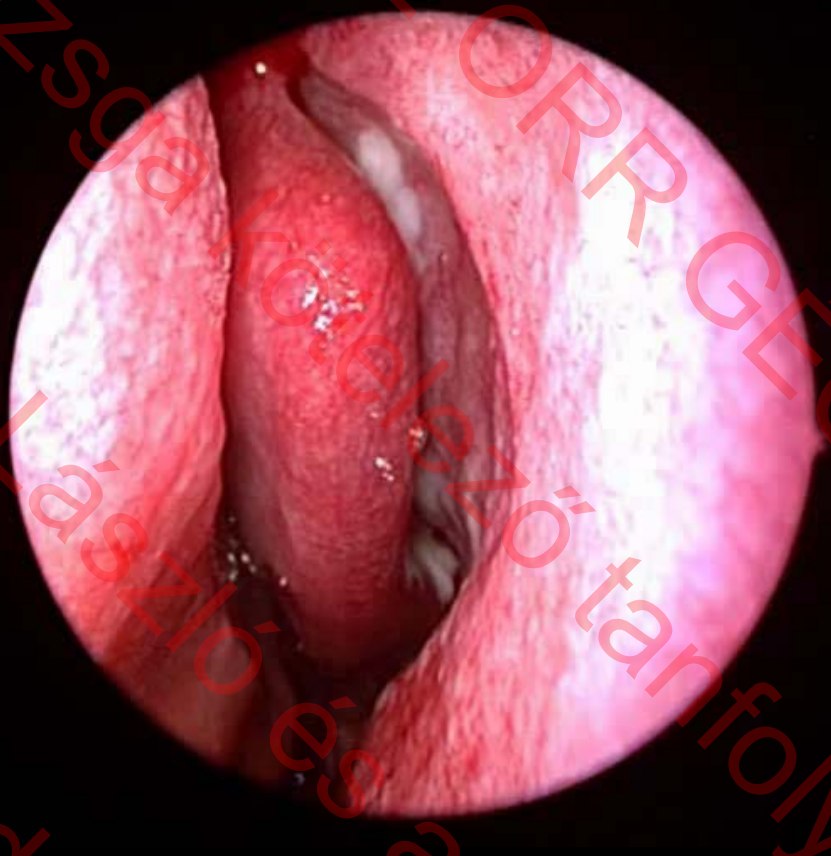
Opening of the frontal sinus, removal of a large frontoethmoidal cell (Kuhn 3. cell)



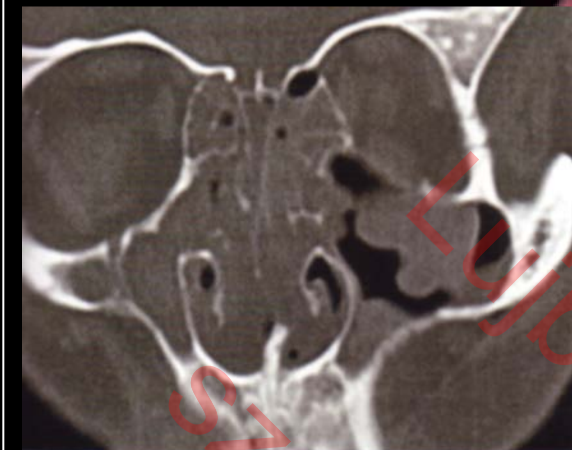
Frontal sinus empyema

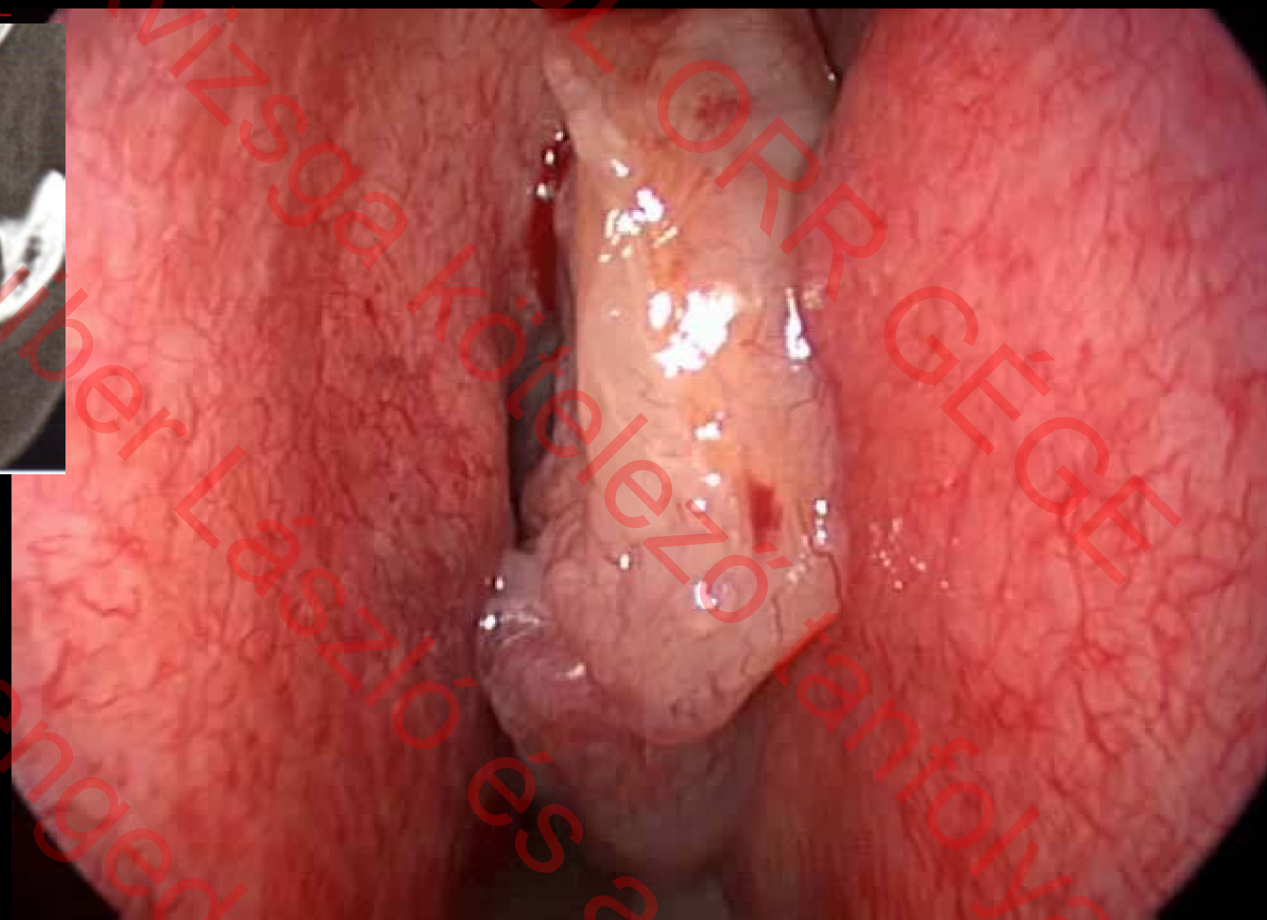




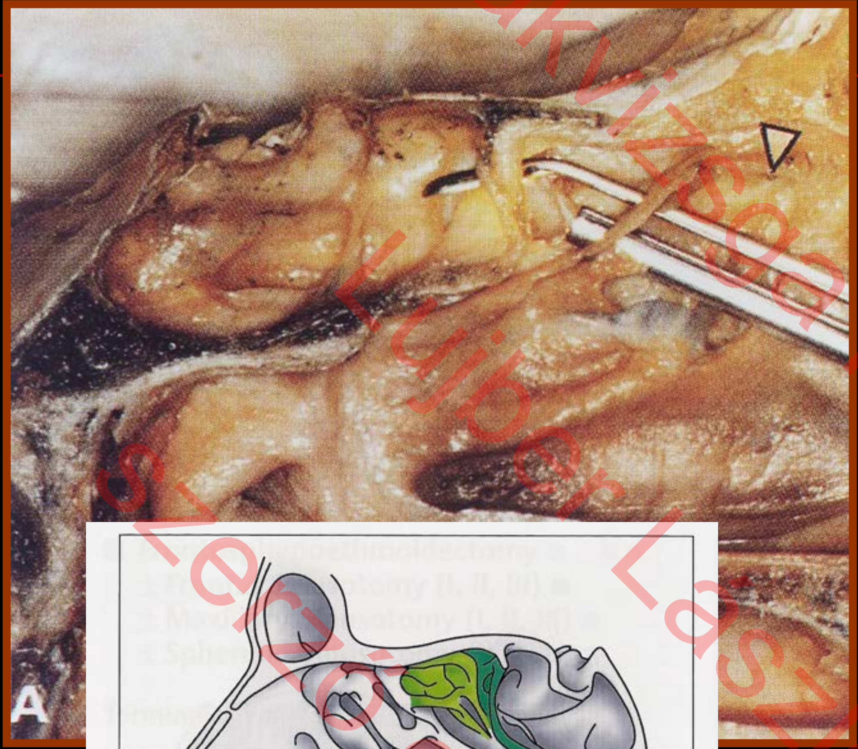


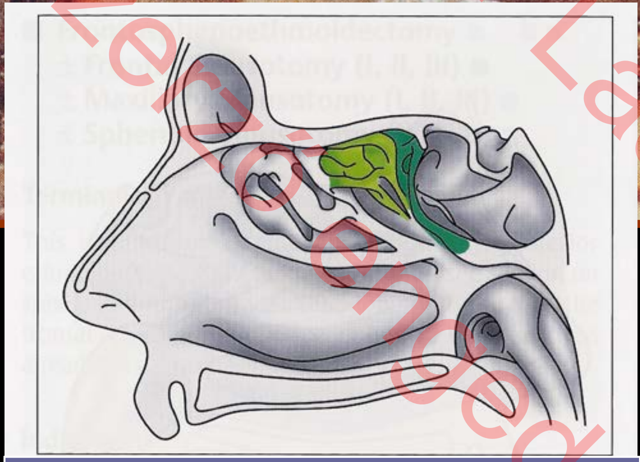
Ethmoidectomy with shaver
(diffuse polyposis)



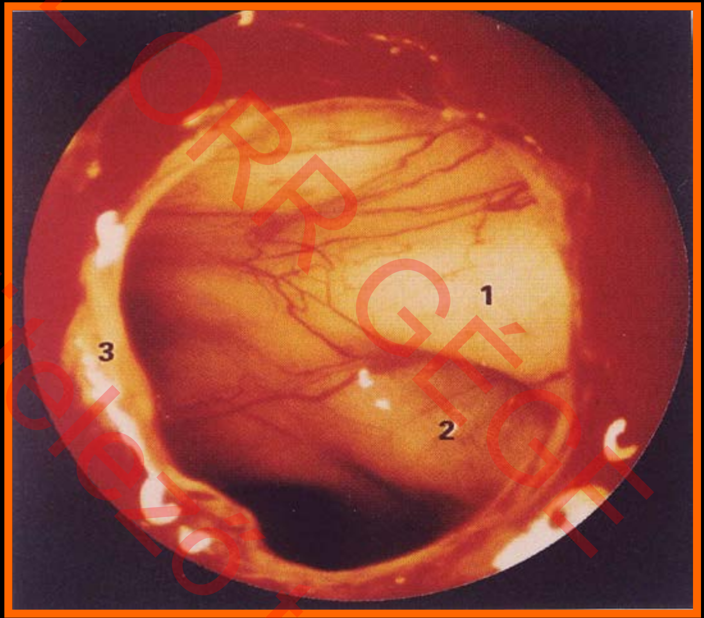


Exploration of the sphenoid sinus (sphenoidotomy)



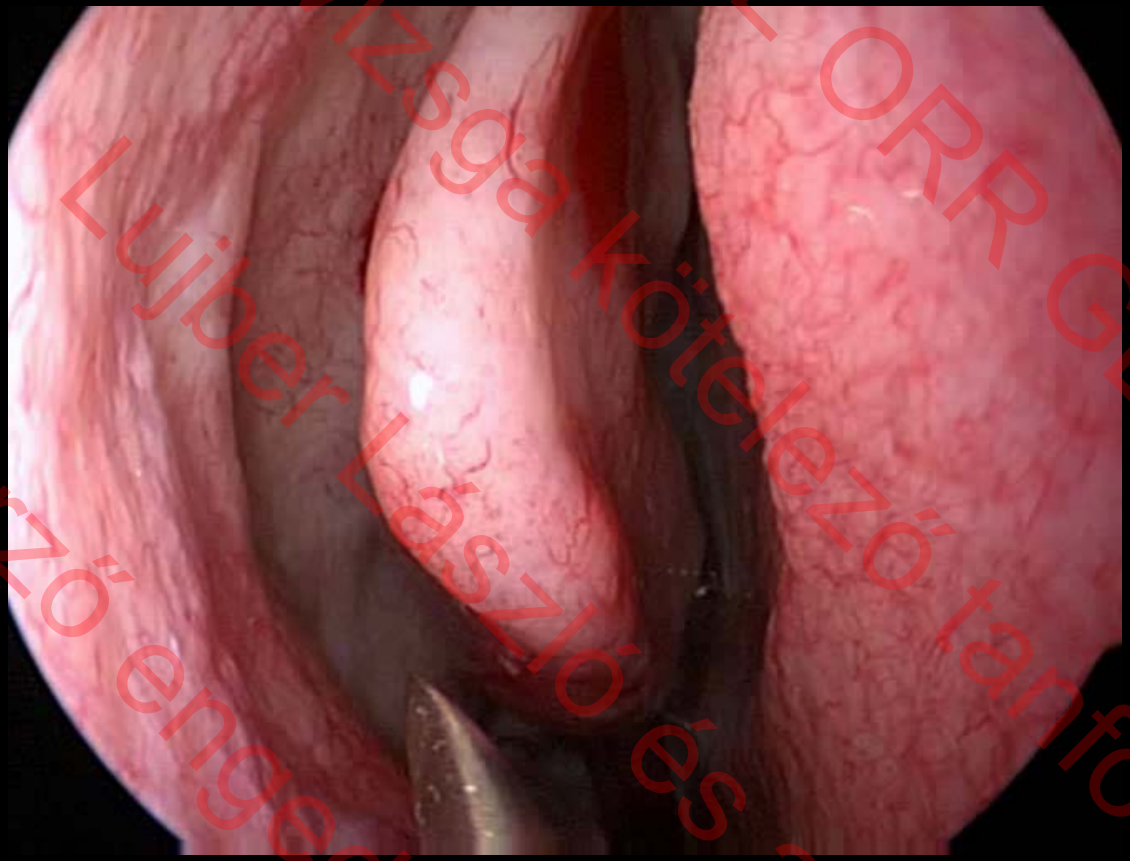


sphenoidotomy

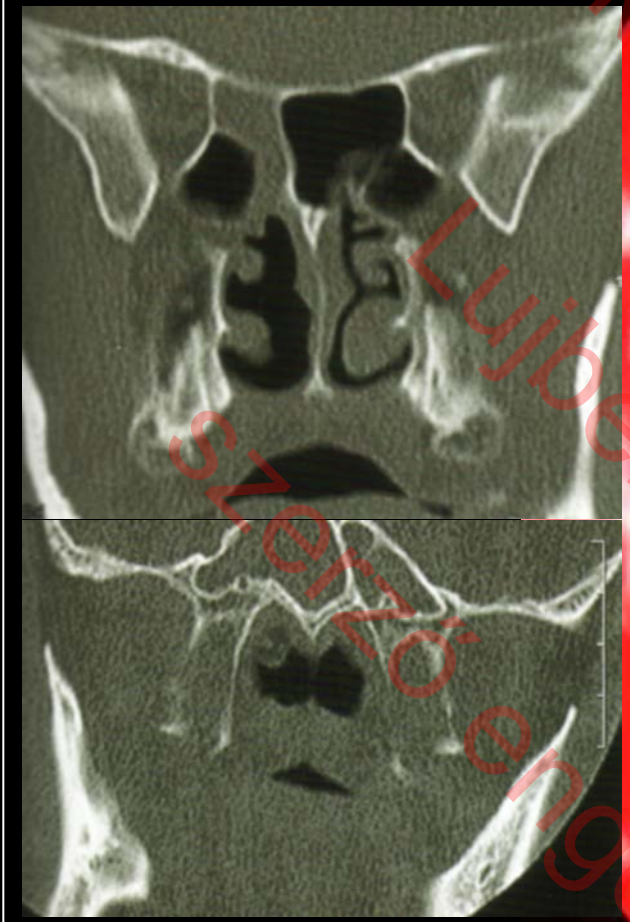


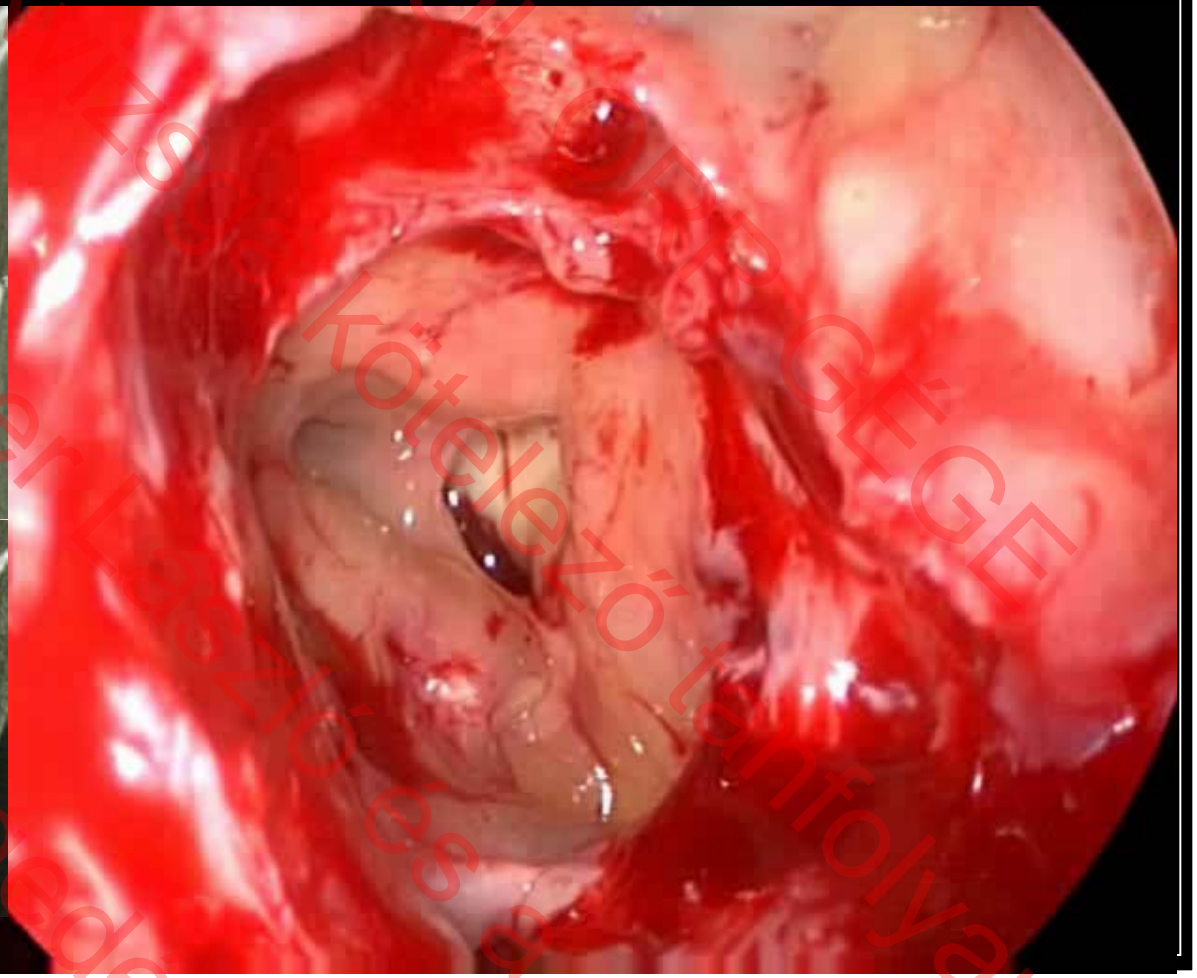
1: optic nerve
2: internal carotid artery
3: anterior wall of the sphenoid sinus

Transethmoidal sphenoidotomy

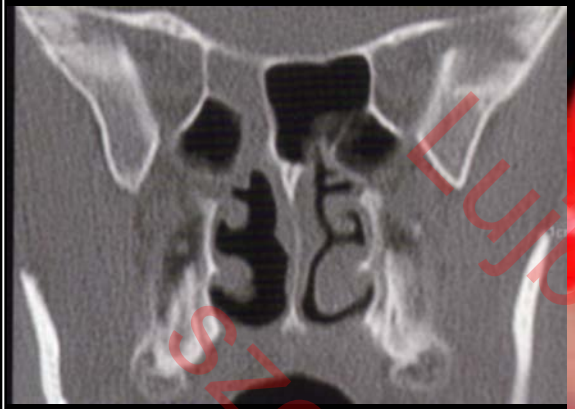


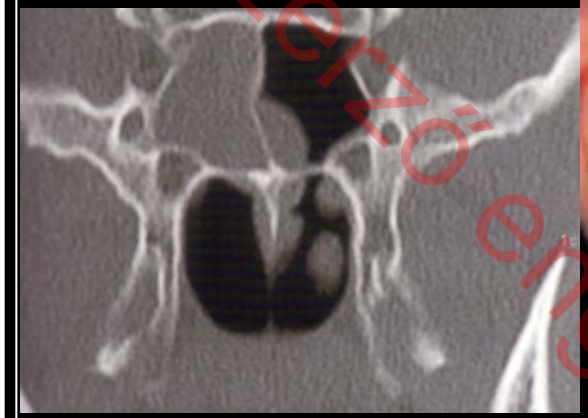
Large Onodi cell, exploration of the sphenoid sinus

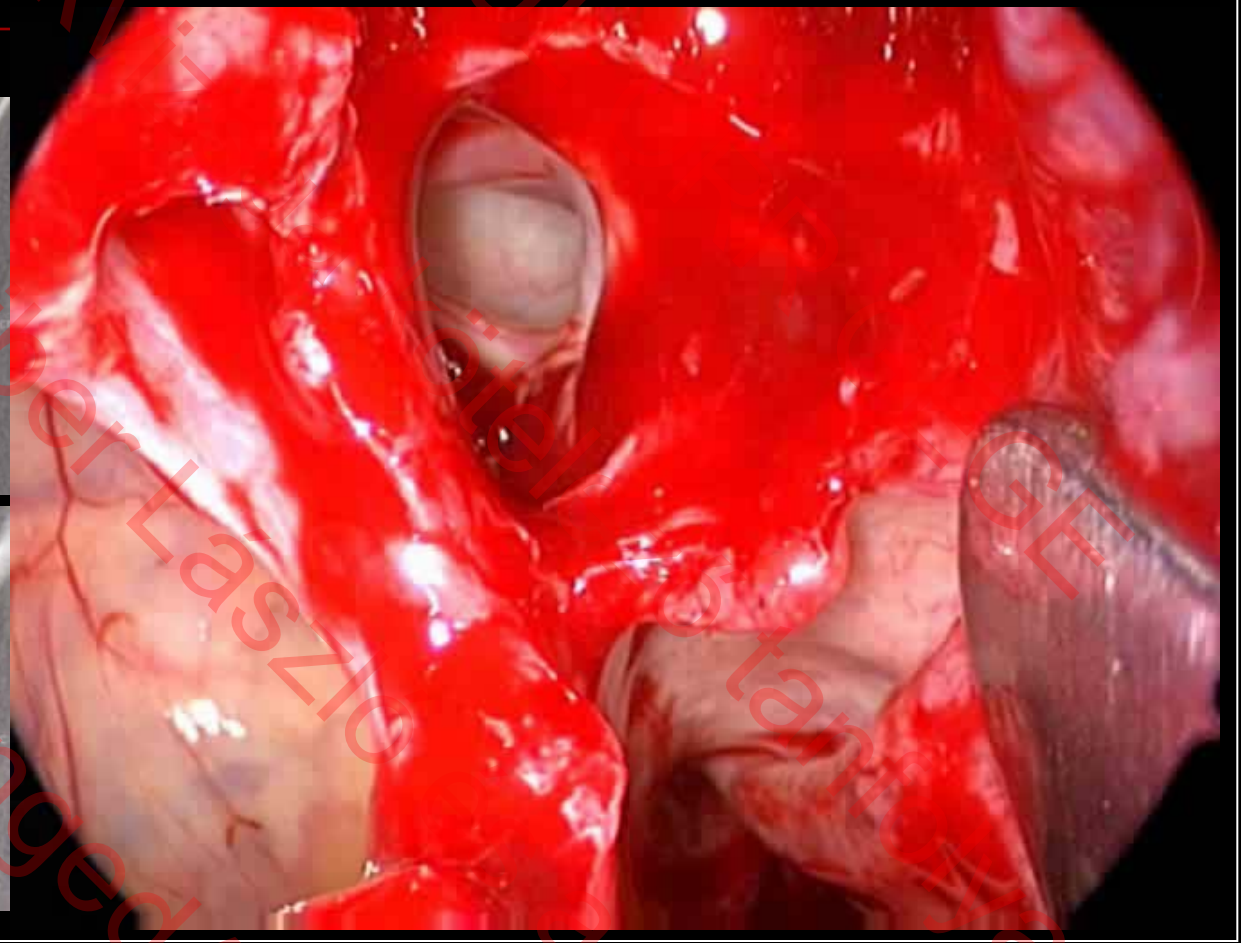




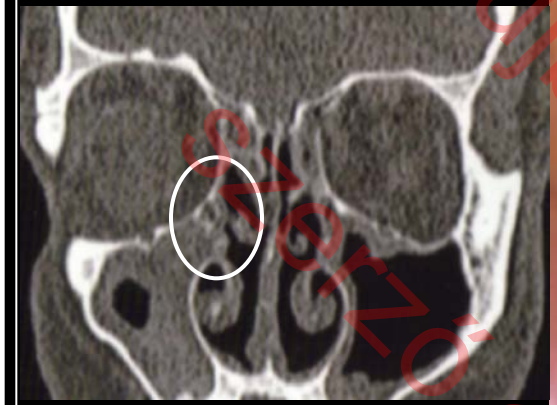
Sphenoidotomy, sphenoid sinusitis (Onodi cell)

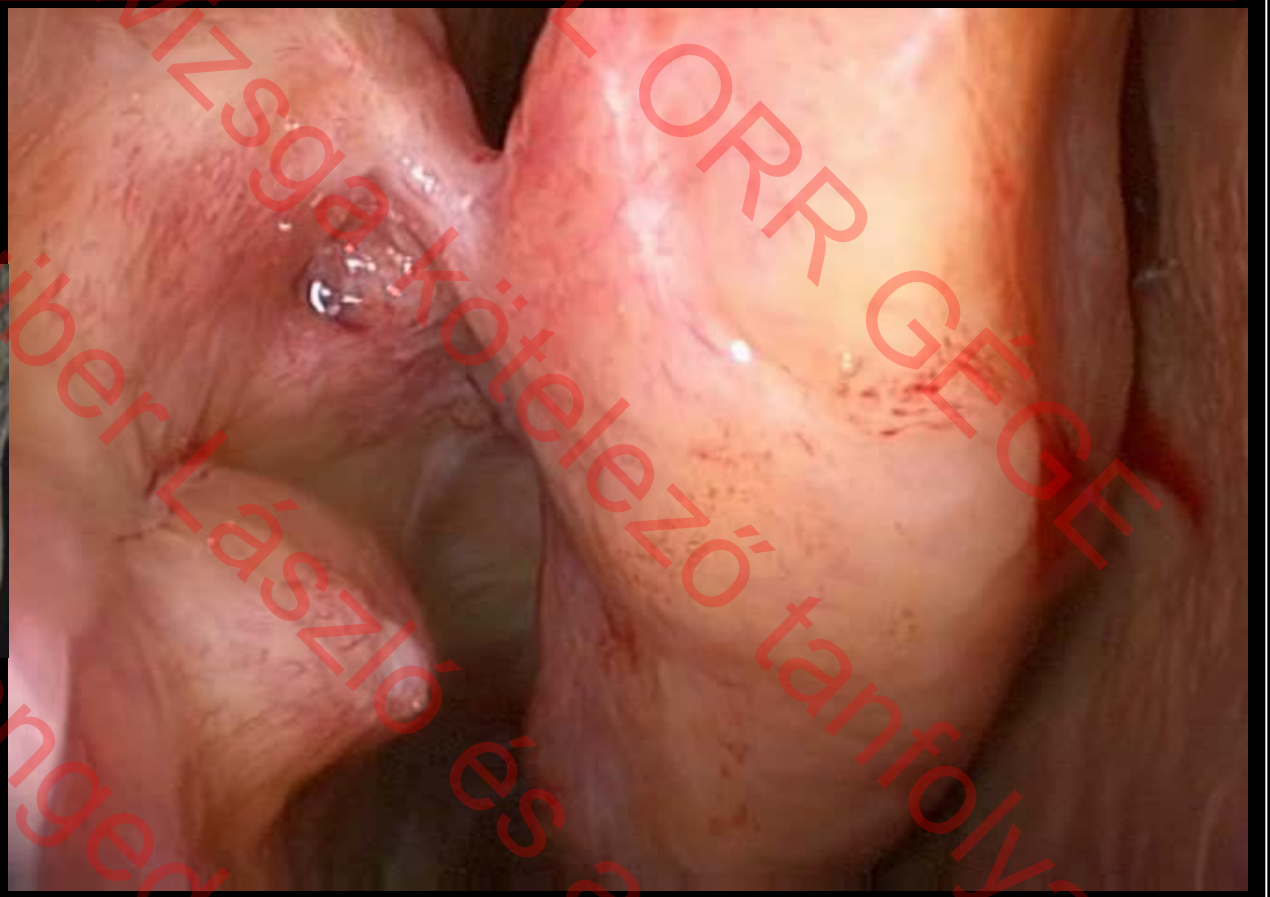




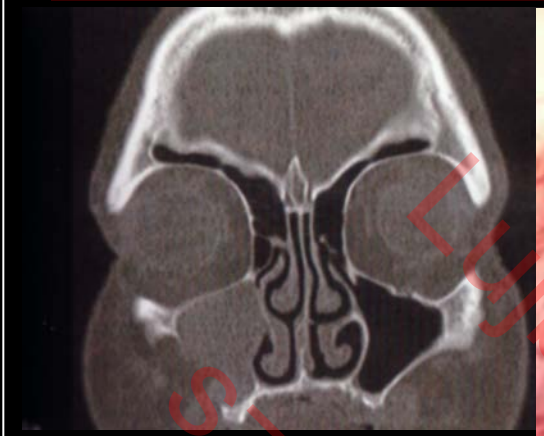


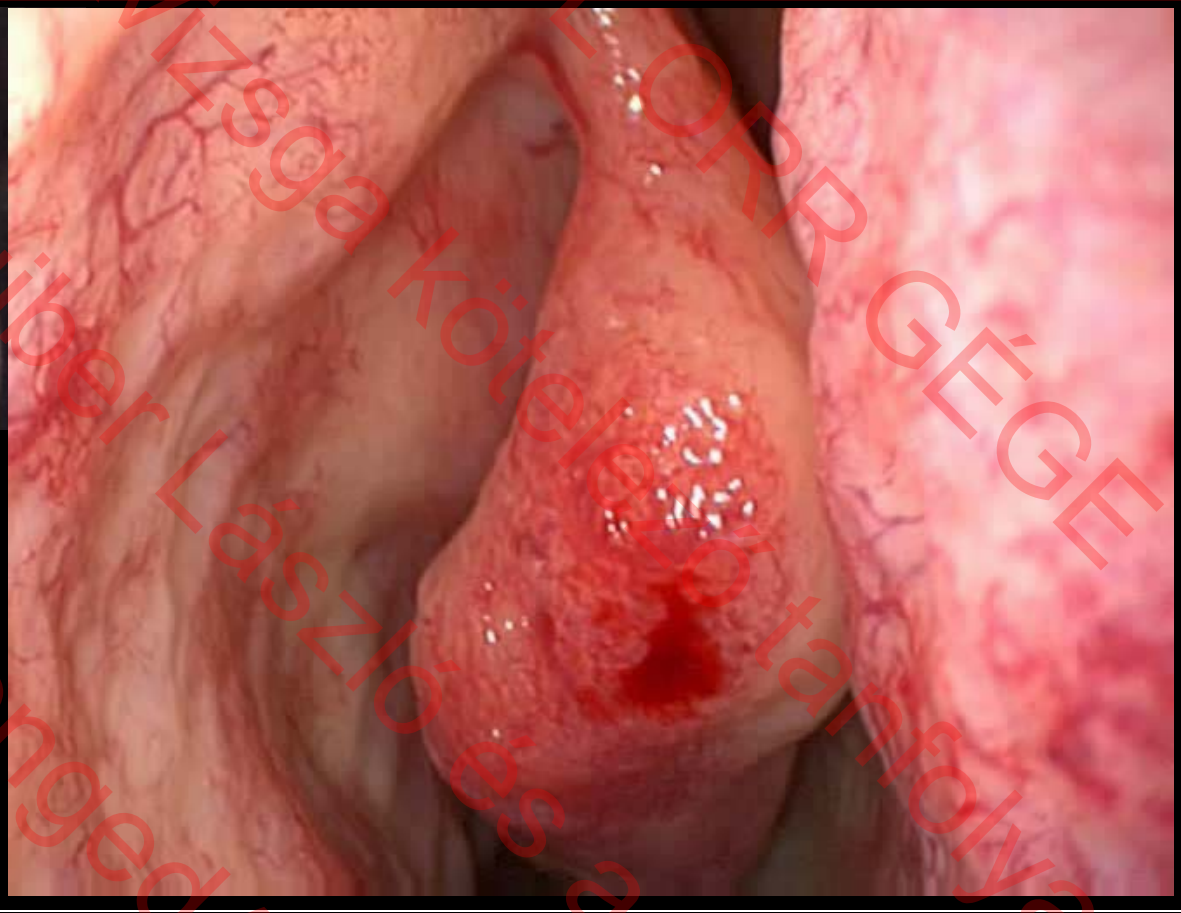
Exploration of the natural ostium of the maxillary sinus (revision)





Mucocele (maxillary sinus)





Postoperatív hints

- Saline irrigation (blood clot, mucus), until the function of the cilia regenerates
- Endoscopic nasal toilette after 1 week, try to prevent adhesions. Do not check the patient too frequently.
- Per oral prednisolon in the post. op. period, try to create a good complience.
- Prepare the patient for tampone removal.
- Postoperatíve anelgesia.

Puy St. Vincent (France, 2011)

Thank you for your attention !