

La rhinite chronique, bons réflexes diagnostiques et thérapeutiques

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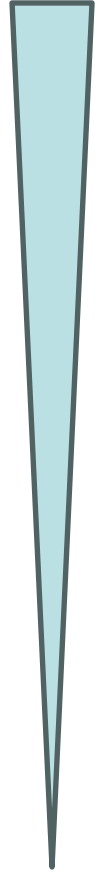
FACULTÉ DE MÉDECINE

What is Chronic Rhinitis ?

- Symptoms
- Duration
- Descriptive Diagnosis
 - Etiological sub-diagnosis possible but still ongoing/debated/investigated

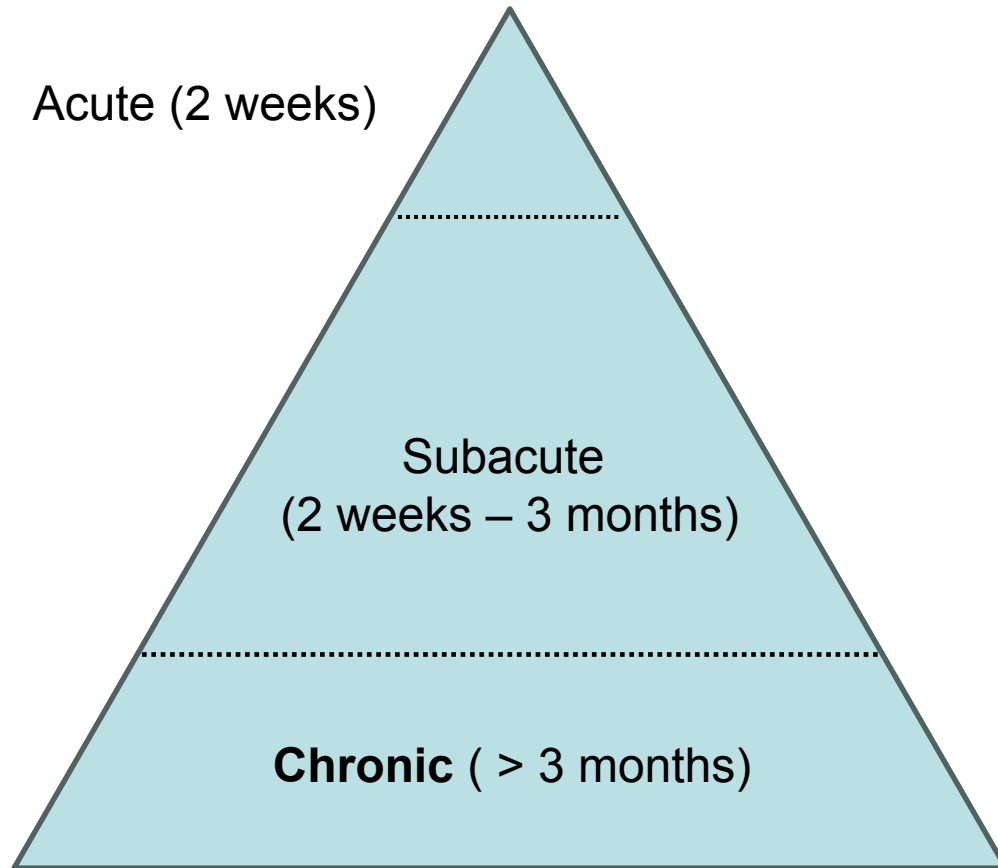
Nasal Symptoms

- Nasal obstruction
- Rhinorrhea (anterior/posterior)
- Sneezing
- Decreased sense of smell
- Repeated (super)infection
- Facial pain/Headache
- Cough

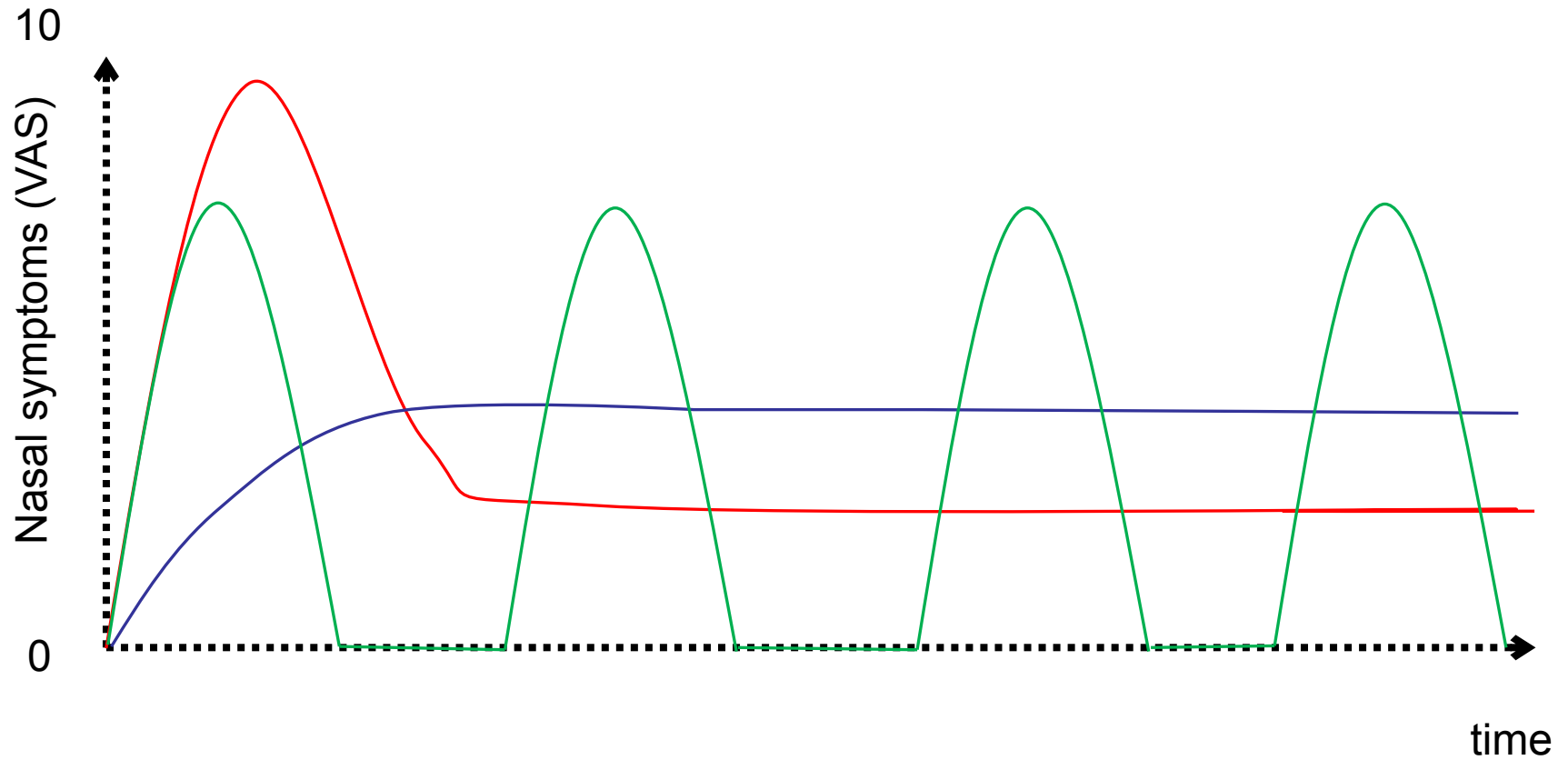


Likelihood coming from a nasal problem

Duration



What does chronic mean ?

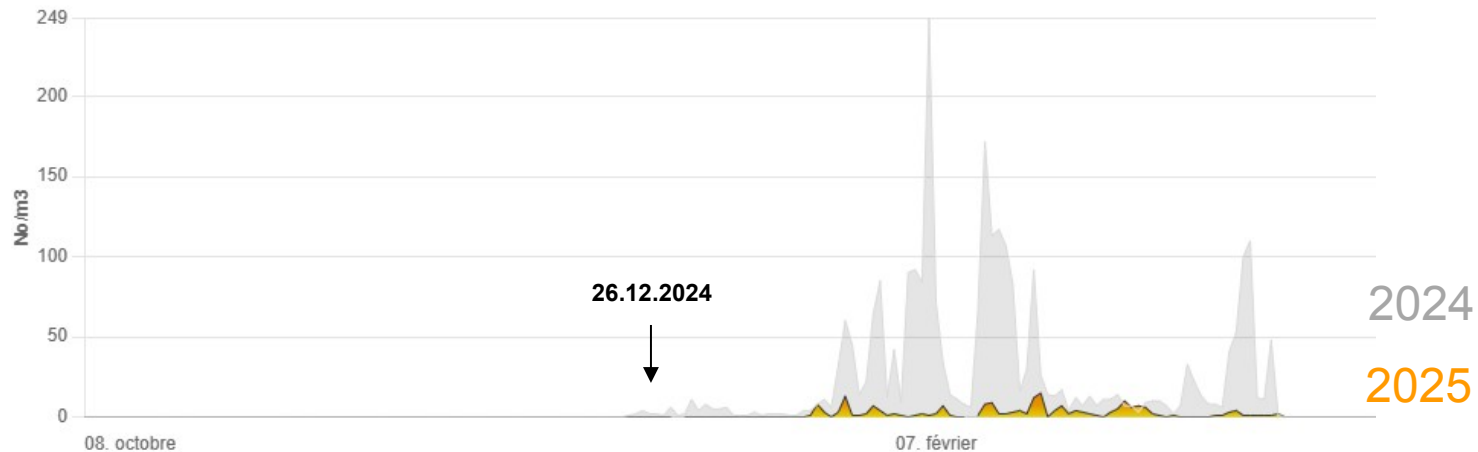


Particularities to ask for

- Seasonality
- Side (unilateral versus bilateral)
- Occupation (work)



www.pollenetallergie.ch

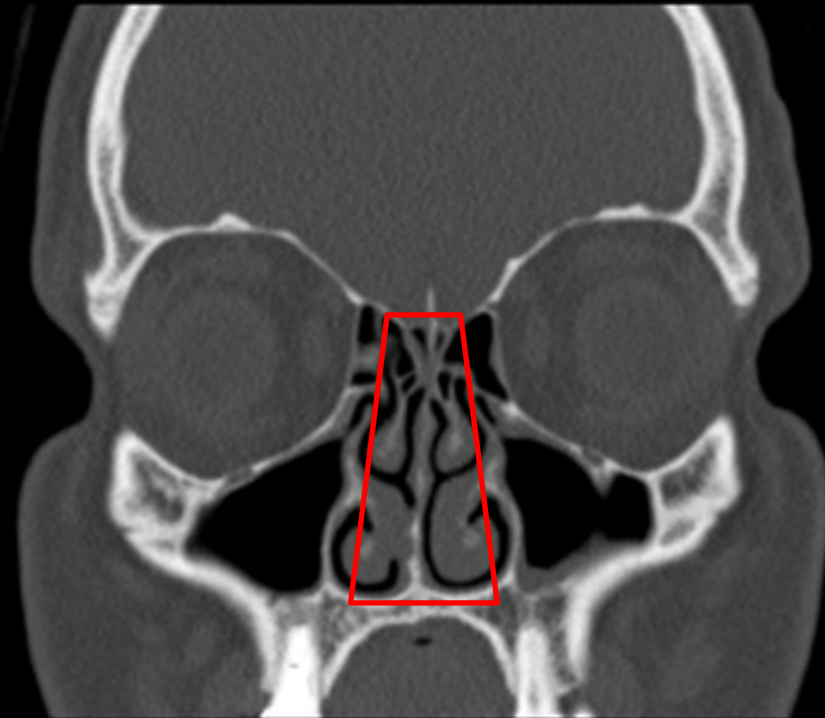


Diagnosis

Chronic Rhinitis  **Chronic Rhinosinusitis**

Paranasal Sinuses involved or not

Nasal cavity and Paranasal Sinuses



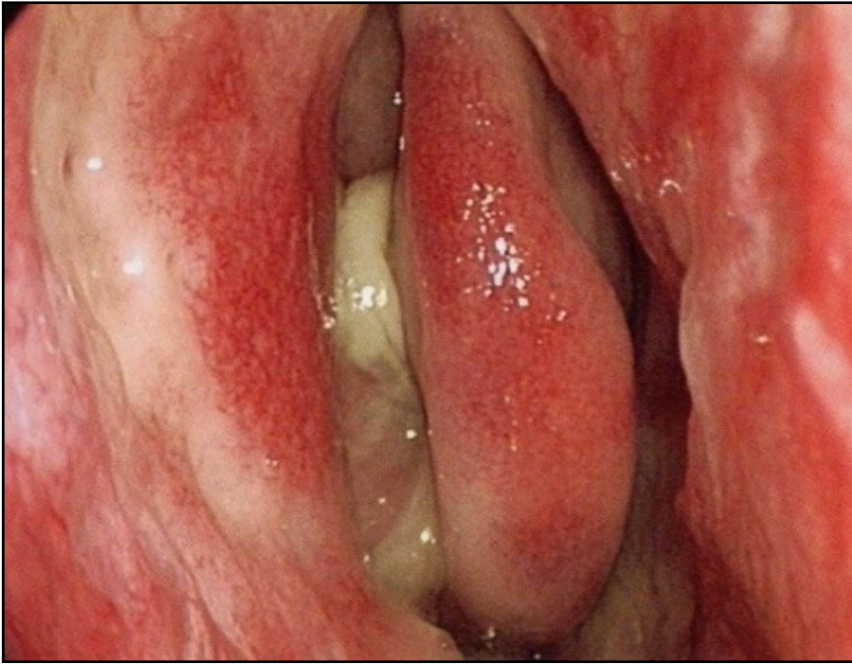
Different functions, Different diseases, Many similarities

Contact with airflow

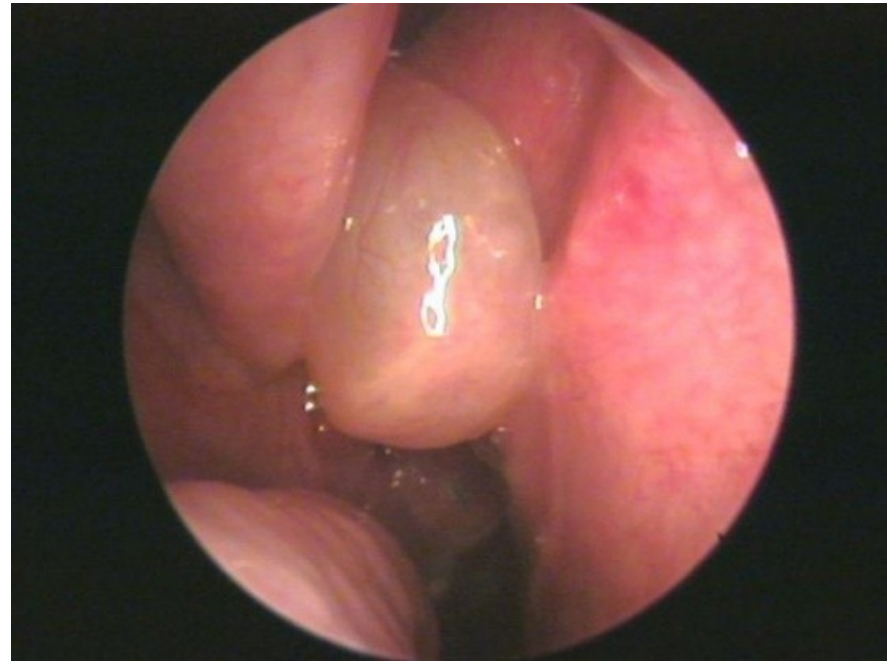




Signes endoscopiques

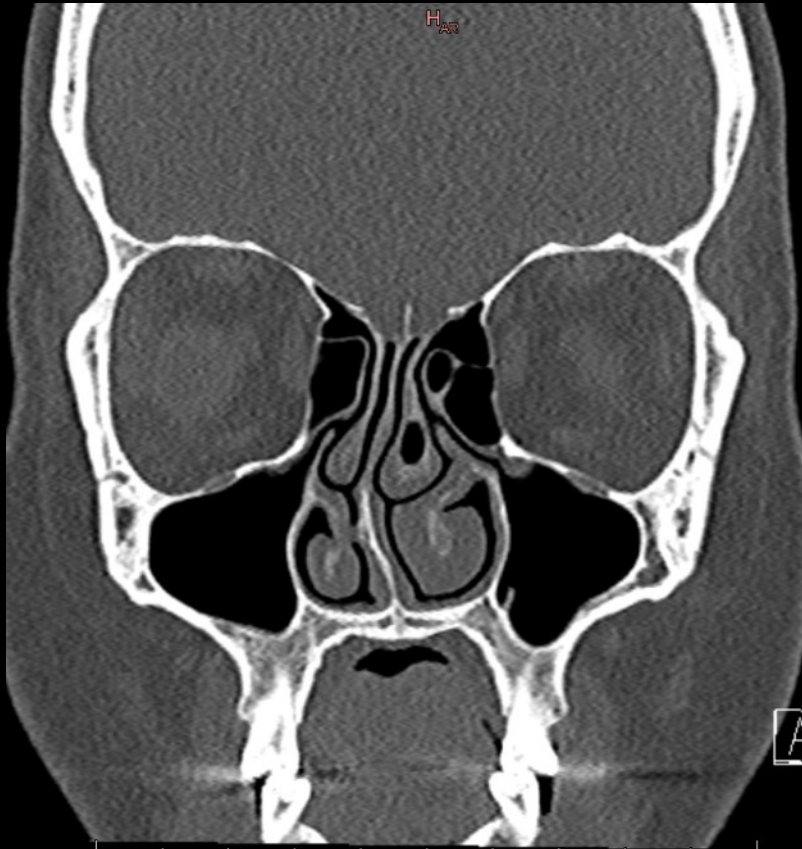


Pus

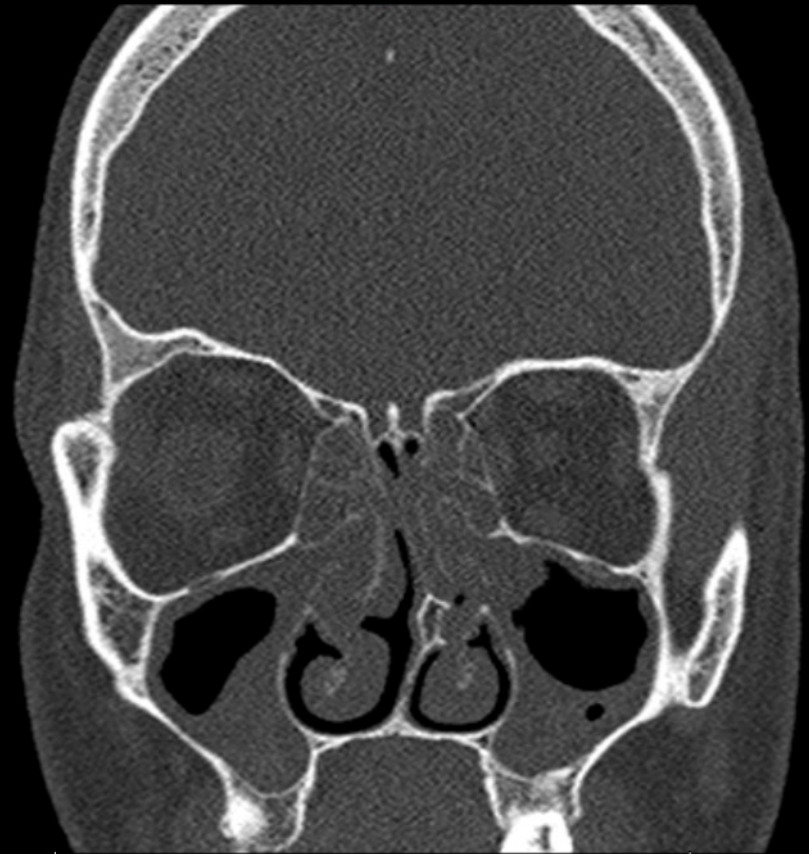


Polypes

CT / Scanner



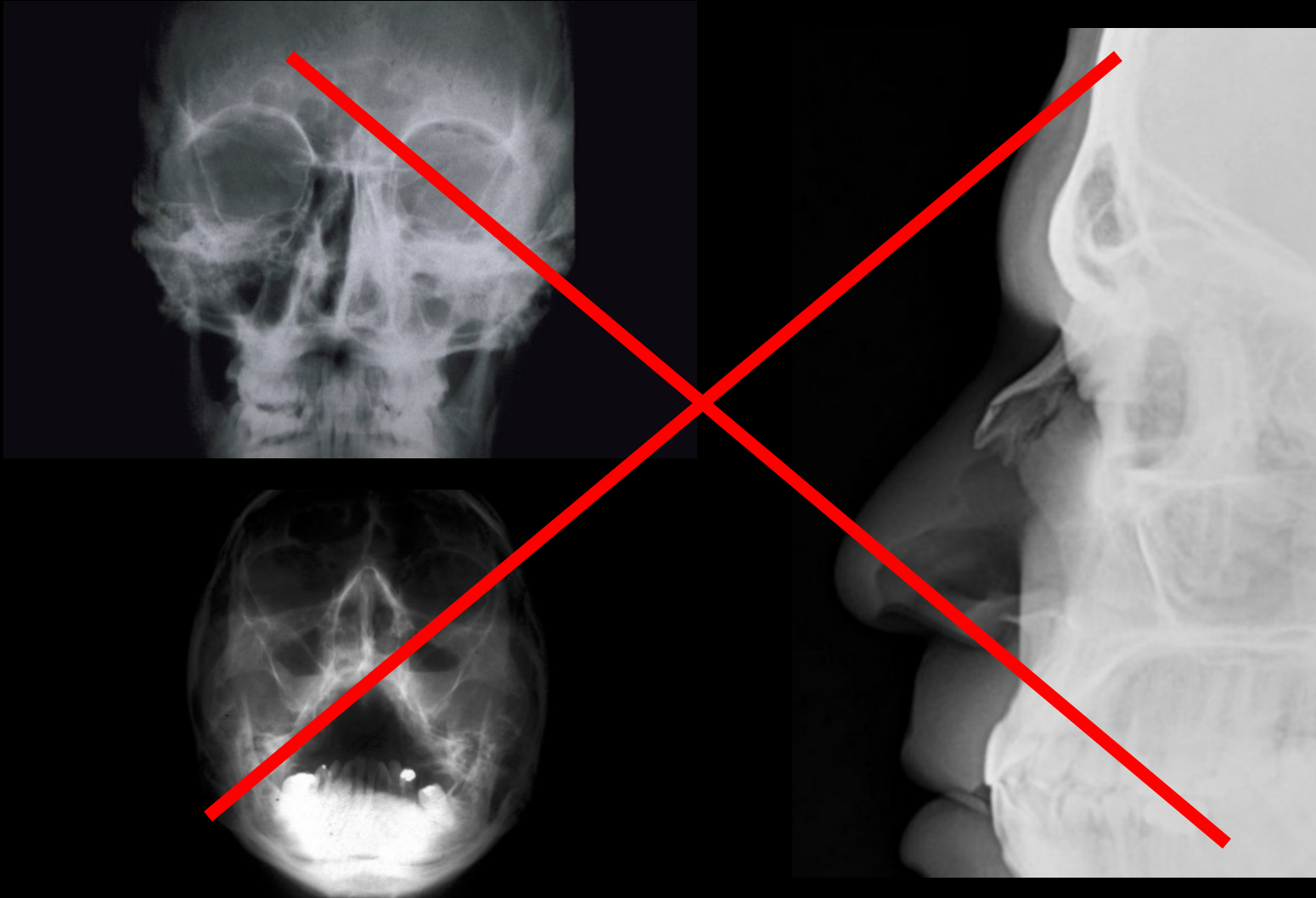
Normal



Pathologique (cavités sinusiennes
opacifiées)

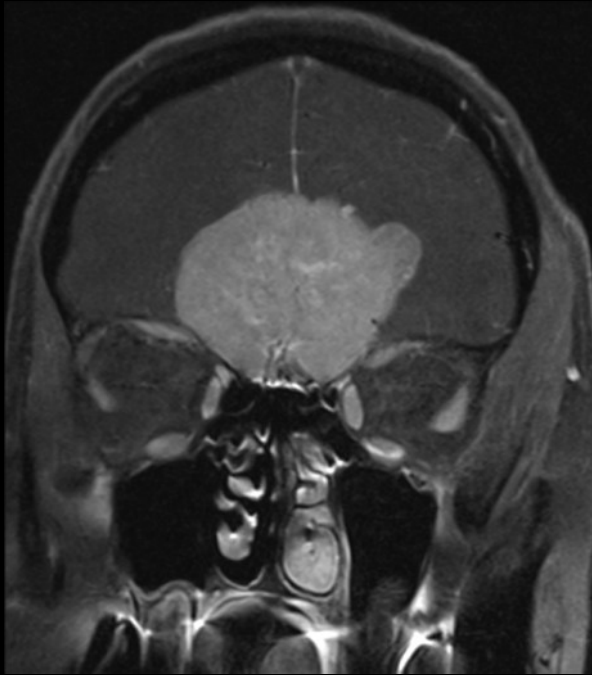
Bonne appréciation osseuse/cavité bien aérées

Images Standard



Valeur clinique limité en rhinologie, Obsolète ! Contribue quasi jamais a une décision clinique

IRM



Méningiome



Comblement pan-sinusien



Différencier
masse/retentions

Bonne appréciation de tissus mous – différencier type de comblements

Chronic Rhinosinusitis - Definition

Rhinosinusitis (including nasal polyps) is defined as:

- inflammation of the nose and the paranasal sinuses characterised by **two or more** symptoms, one of which should be either **nasal blockage/obstruction**/congestion or **nasal discharge** (anterior/posterior nasal drip):
 - $\pm$ facial pain/pressure,
 - $\pm$ reduction or loss of smell; **B**

and either

- **endoscopic signs** of:
 - polyps and/or;
 - mucopurulent discharge primarily from middle meatus and/or; oedema/mucosal obstruction primarily in middle meatus,

and/or

- **CT changes**:
 - mucosal changes within the ostiomeatal complex and/or sinuses.

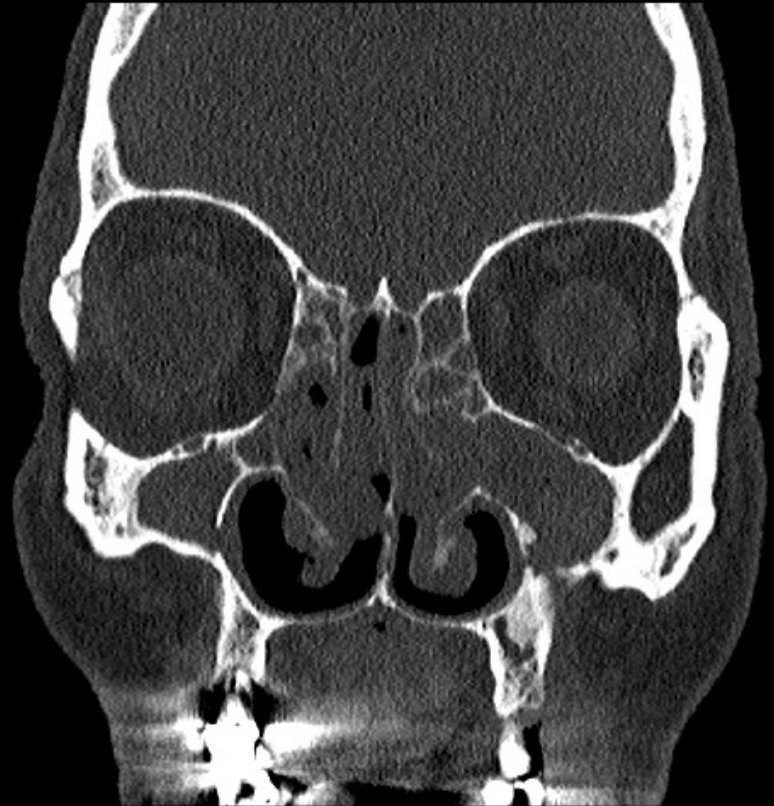
A (mandatory)

> 12 weeks

Rhinite chronique versus Rhinosinusite chronique



CT normal



Participation des sinus

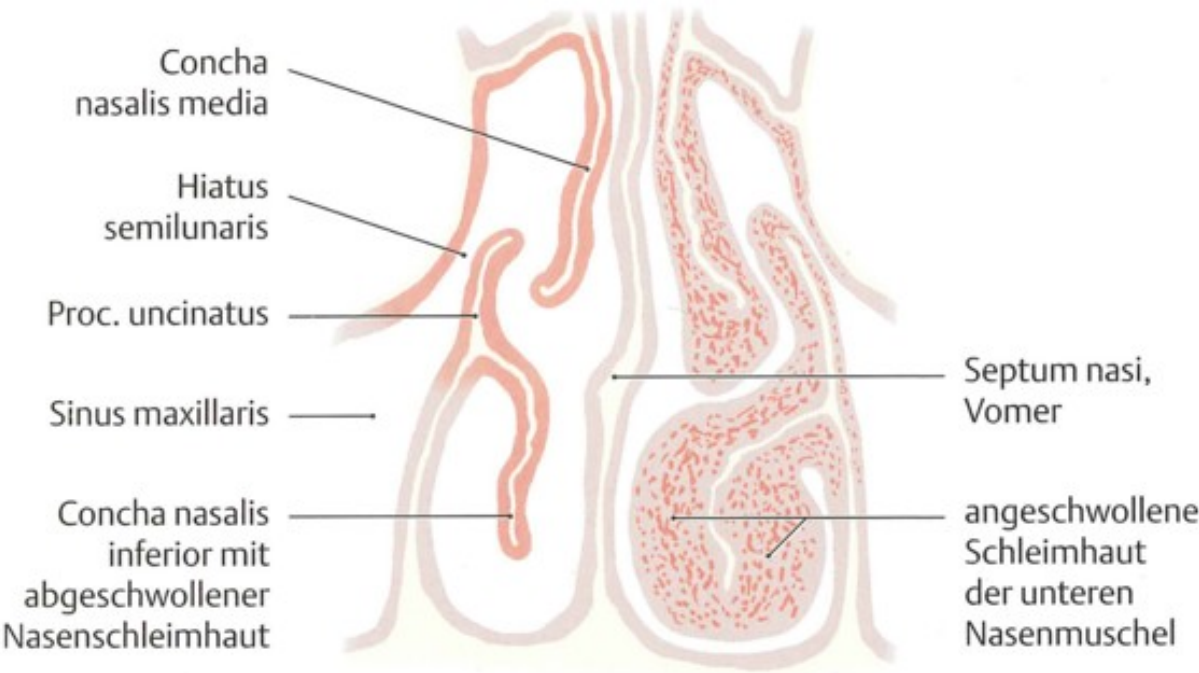
Causes of Chronic Rhinitis

- **Structural / Physical obstacles** (septal deviation, etc.,)
- **Mucosal Swelling** (inflammation, allergy, work exposure, etc.,)
- **Real Life: Often both**



Septal Deviation

MECHANICAL



decongested congested

MUCOSAL

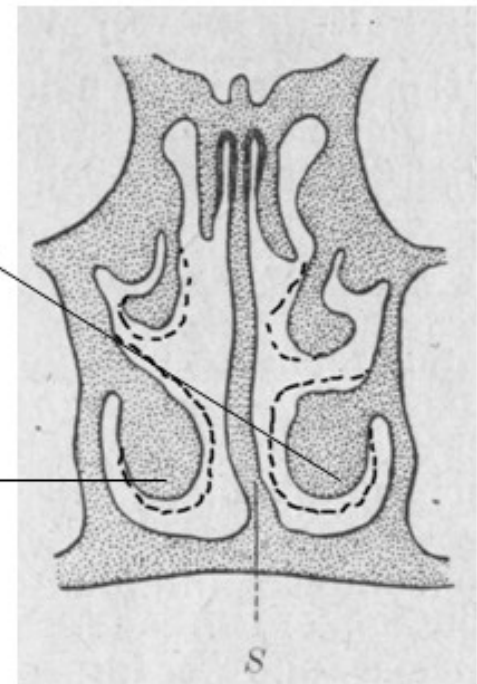
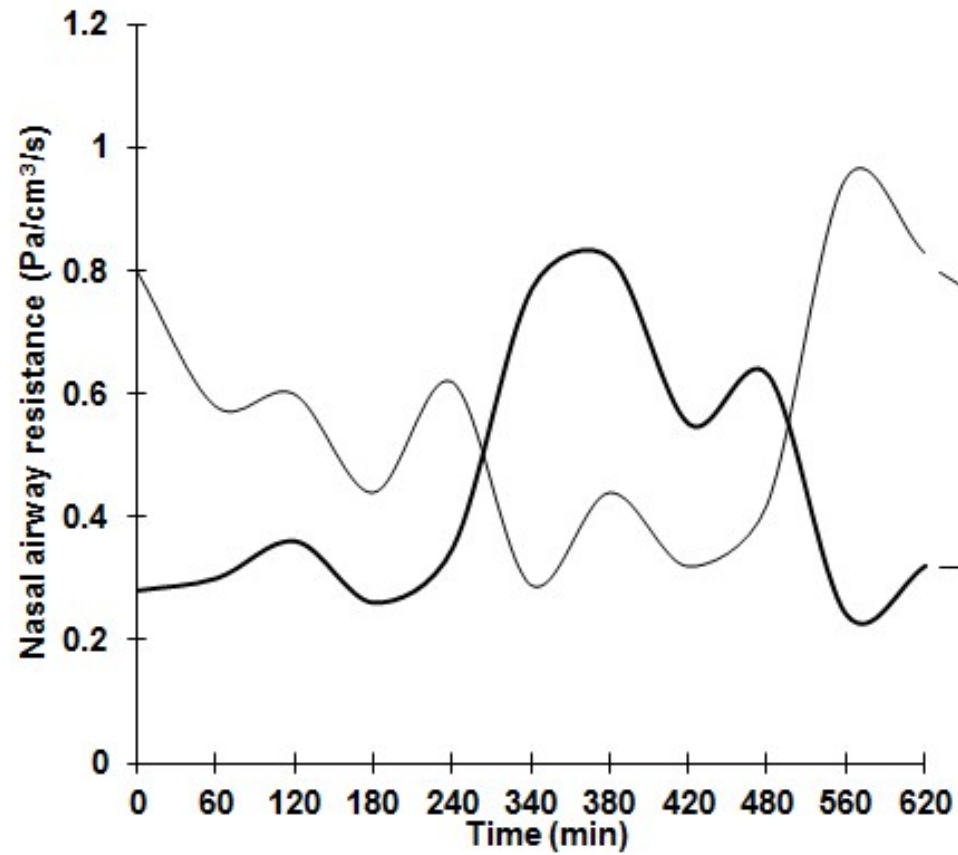
What causes mucosal swelling ?

- **Normal / Physiological**
- **Nasal Hyperreactivity**
- **Systemic Diseases**

Normal / Physiological

- **Nasal Cycle**
- **Axillary Reflex**

Nasal Cycle



Axillary – Nasal Reflex

Clin. Otolaryngol. 1996, 21, 442-444

The nasal response to axillary pressure

A.D.WILDE & A.S.JONES

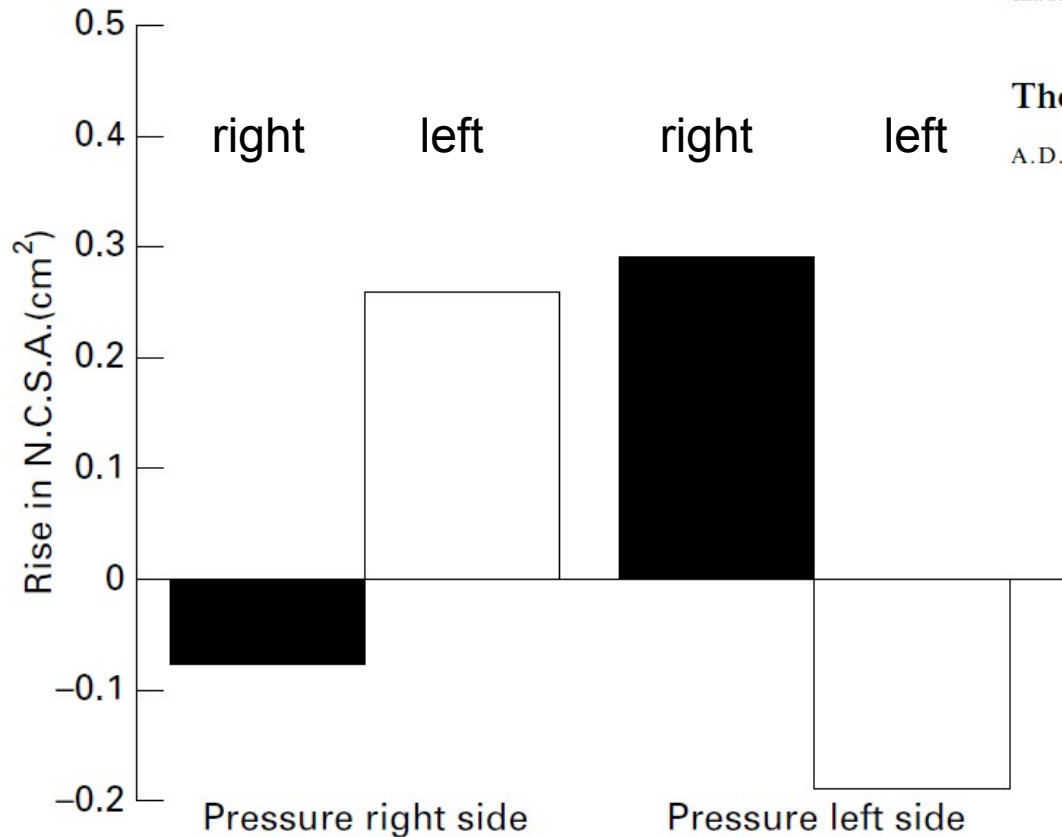
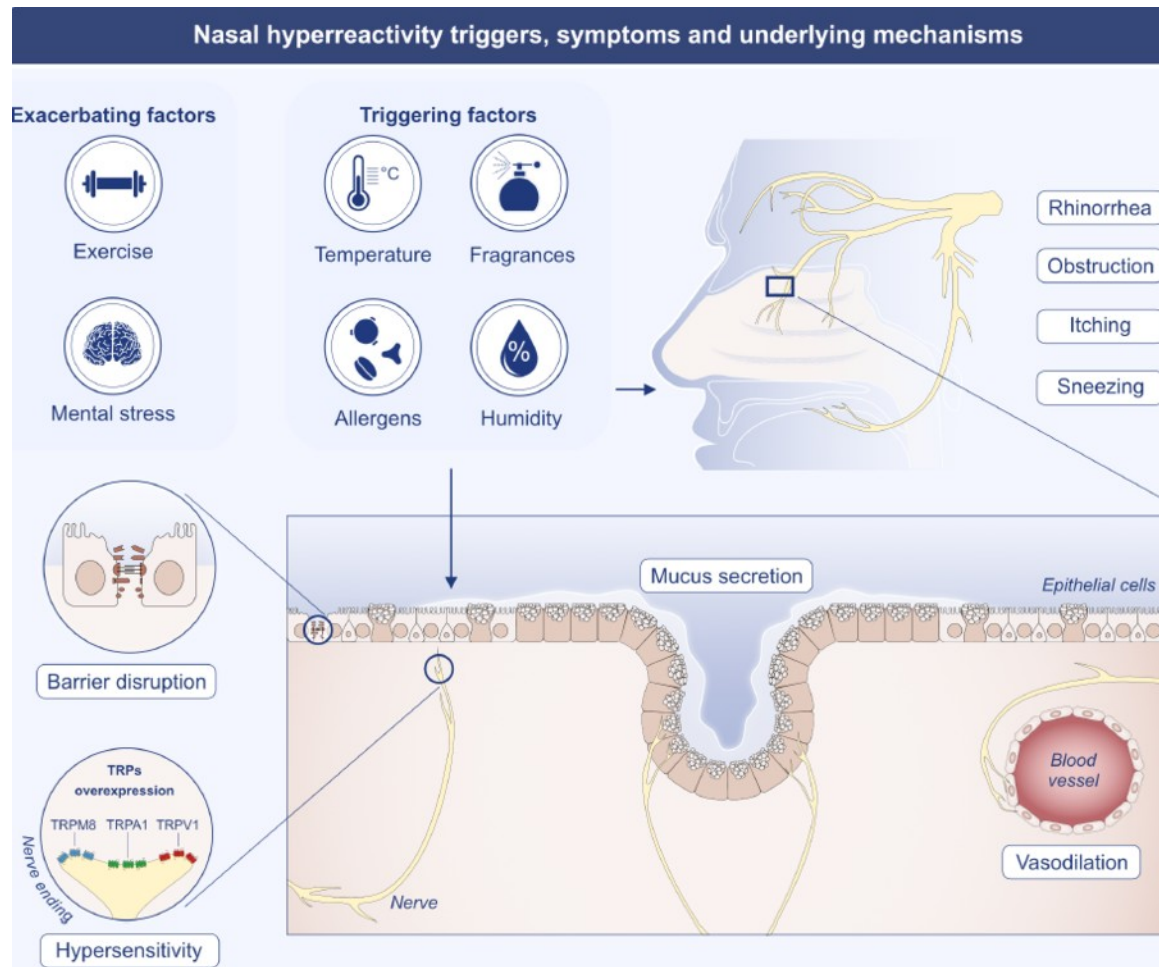


Figure 1.

The nasal mucosa exhibits laterality in its vascular erectile response to axillary pressure with congestion on the side of the stimulus and clearing on the opposite side. The rise in

Nasal Hyperreactivity



- Nasal Hyperreactivity is NOT an on / off phenomenon but spans as a **SPECTRUM** of reactivity
- Nasal Hyperreactivity is present in **ALL** types of chronic Rhinitis / Rhinosinusitis

Chronic Rhinitis

(symptoms > 12 weeks)

Discolored
secretions
Crusting

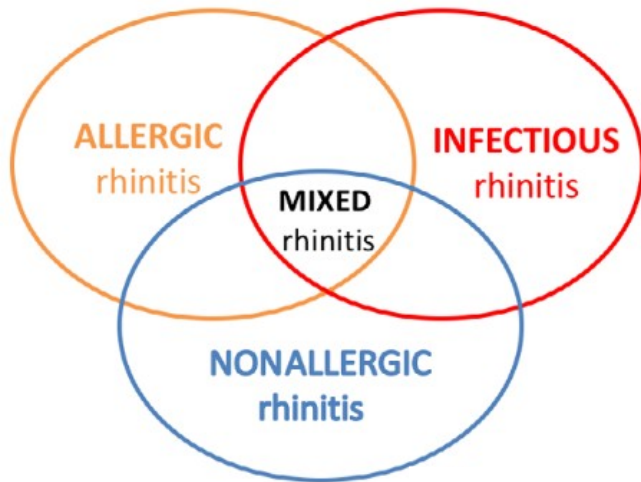
Positive SPT
Specific IgE in
serum
All prov. test

No clinical sign of infection
No sign of sensitisation

Infectious rhinitis

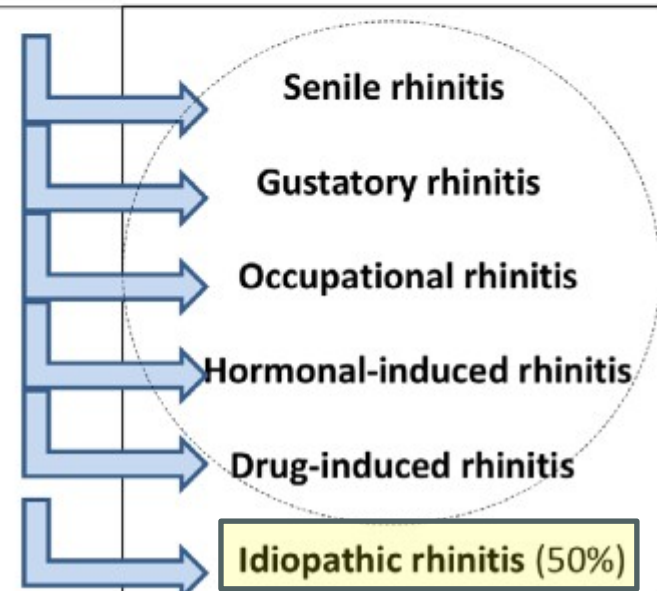
Allergic rhinitis
(incl. local allergic rhinitis)

Nonallergic, noninfectious rhinitis

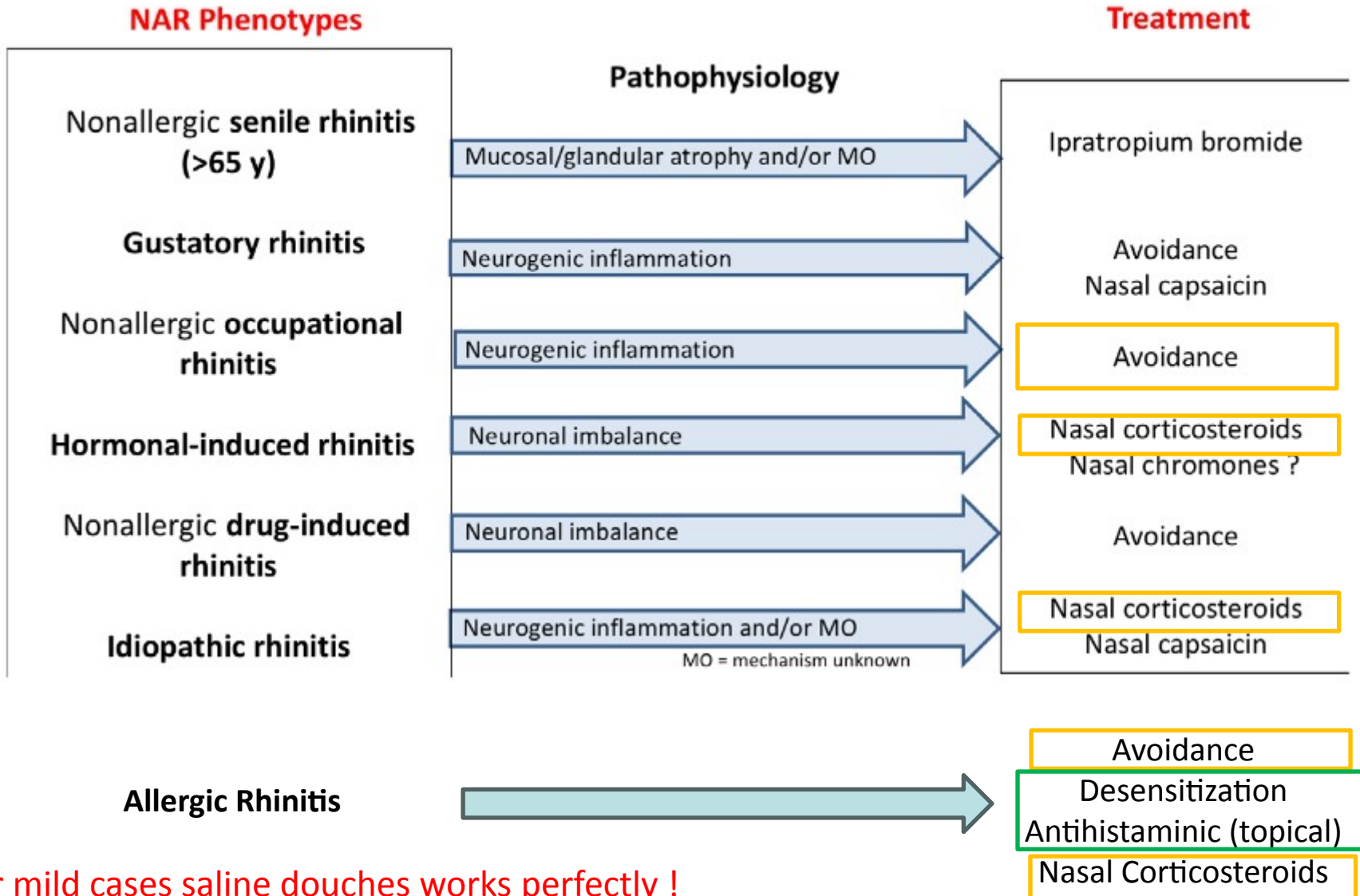


Patient history

Per exclusionem



Treatment



For mild cases saline douches works perfectly !

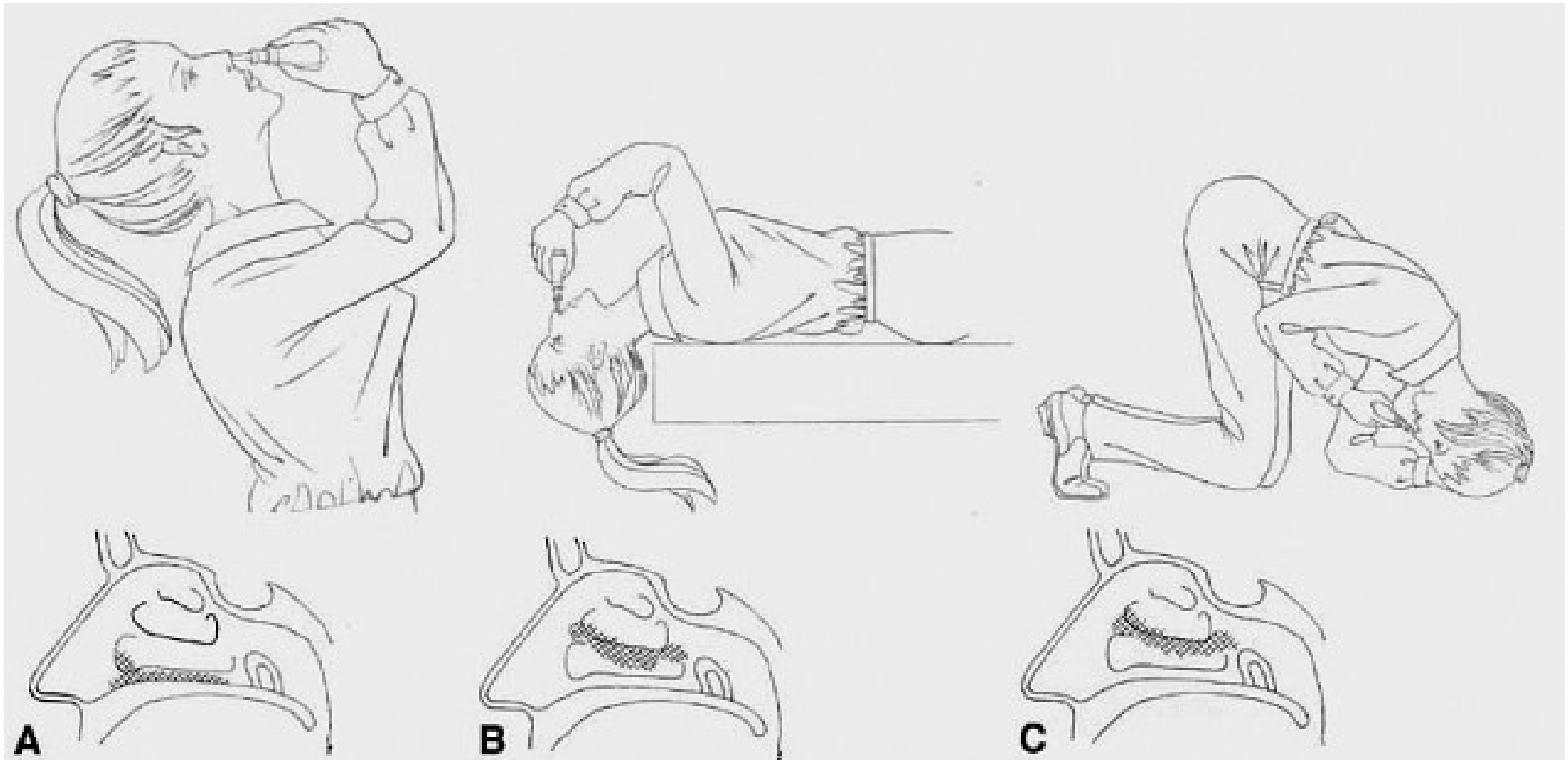
CR / CRS treatment : DISCUSS

- Chronic Disease – Takes a bit time to accept
- Follow up – Avoid medical tourism
- Patient education
- Discuss fears/expectation (corticophobia, side effects, addiction, slow mechanism, life-long treatment, etc)

Nasal Corticosteroids

- Distribution
- Adherence
- Side effects

Classical medical treatment in CRS



Distribution of blue dye (indicated by crosshatching) in the nose after instillation of topical nose drops: (A) head-tipped-back position, (B) Mygind's position, and (C) praying-to-Mecca position. Note distribution of the spray in the inferior portion of the nose in the head-tipped-back position (A). (Intranasal diagrams adapted from Kubba et al, 2000.)

Drug application



Pipette
(Nasal Drops)



Sprayer
(Nasal Spray)



Plastic Tubing
(Squirt System)

Drug application



Compliance / Treatment adherence

Table 2. Frequency of Incident Prescriptions and Primary Nonadherence Rate, by Therapeutic Indication

Therapeutic Indication	Primary Nonadherence Rate, n (%)		
	Overall	Switch to New Drug in Pharmacologic Class	New Indication
Circulatory system disease	5395 (34.8)	966 (5.9)	4429 (41.1)
Hypertensive diseases	4768 (33.2)	905 (5.4)	3863 (39.8)
Ischemic heart diseases	261 (51.3)	27 (11.1)	234 (56.0)
Respiratory system disease	5351 (28.5)	687 (16.0)	4664 (30.3)
Acute bronchitis	1239 (26.4)	97 (9.3)	1202 (21.3)
Rhinitis	1010 (37.8)	113 (27.4)	897 (39.1)
Endocrine and metabolic disease	4509 (33.9)	628 (7.8)	3881 (38.1)
Dyslipidemia	2656 (33.4)	570 (7.5)	2086 (40.4)
Diabetes/complications	1019 (28.8)	33 (12.5)	986 (29.6)
Musculoskeletal system disease	3968 (28.2)	503 (13.5)	3465 (30.3)
Dorsopathies	1303 (27.9)	238 (12.2)	1065 (31.5)
Osteopathies and chondropathies	975 (33.1)	88 (13.6)	887 (35.1)
Mental and behavioral disorders	3870 (31.6)	451 (7.5)	3419 (34.8)
Depression	1110 (36.8)	71 (14.1)	1039 (38.3)
Anxiety	971 (32.1)	97 (7.2)	874 (34.9)
Skin disease	2381 (27.8)	444 (18.7)	1937 (29.9)
Inflammation/pruritus	996 (25.2)	240 (19.2)	756 (27.1)
Dermatitis/eczema	725 (30.1)	161 (19.9)	564 (33.0)
Digestive system disease	2211 (32.3)	400 (10.8)	1811 (37.1)
GERD/esophageal reflux	971 (33.9)	219 (7.3)	752 (41.6)
Gastritis/hyperacidity	879 (33.0)	152 (15.8)	727 (36.6)
Genitourinary system disease	1653 (26.2)	147 (10.9)	1506 (27.7)
Urinary tract infection	808 (21.0)	65 (10.8)	743 (21.9)
Benign prostatic hypertrophy	504 (29.2)	51 (7.8)	453 (31.6)
Infectious and parasitic disease	1400 (27.4)	40 (30.0)	1360 (27.4)
Other fungal infections	437 (24.9)	1 (100.0)	436 (24.8)
Candidiasis	325 (27.4)	6 (0)	319 (27.4)
Nervous system disease	487 (40.5)	38 (15.8)	449 (42.5)
Headache and migraine	253 (51.0)	20 (20.0)	233 (53.6)
Symptoms and signs	448 (28.1)	58 (15.5)	390 (30.0)
Pain	238 (28.2)	44 (13.6)	194 (31.4)
Other	5833 (33.2)	630 (14.8)	5203 (35.4)
Total	37 506 (31.3)	4992 (11.6)	32 514 (34.3)

37% !

CRS Profile

“The young physician starts life with 20 drugs for each disease, and the old physician ends life with one drug for 20 diseases”

William Osler

	Adjusted OR	95% CI
Asthma	3.09 [‡]	2.77–3.43
Chronic pulmonary disease	3.04 [‡]	2.82–3.30
Weight loss	2.58 [‡]	1.30–5.13
Obesity	2.50 [‡]	1.90–3.30
Migraines	2.30 [‡]	1.99–2.64
Lymphoma	2.02 [*]	1.02–3.99
Depression	1.96 [‡]	1.72–2.23
Rheumatoid arthritis	1.85 [‡]	1.63–2.10
Peptic ulcers	1.85 [‡]	1.71–2.00
Solid tumors without metastasis	1.74 [‡]	1.53–1.98
Tuberculosis	1.74 [‡]	1.35–2.24
Parkinson's disease	1.72 [‡]	1.27–2.34
Headaches	1.71 [‡]	1.60–1.82
Hypothyroidism	1.61 [‡]	1.44–1.79
Blood loss anemia	1.61 [*]	1.06–2.46
Cardiac arrhythmias	1.57 [‡]	1.39–1.78
Peripheral vascular disorder	1.52 [‡]	1.26–1.84
Stroke	1.52 [‡]	1.35–1.72
Psychosis	1.44 [‡]	1.22–1.70
Liver disease	1.43 [‡]	1.31–1.56
Hepatitis B or C	1.41 [‡]	1.25–1.60
Ankylosing spondylitis	1.39 [*]	1.07–1.81
Deficiency anemias	1.39 [‡]	1.22–1.59
Hyperlipidemia	1.34 [‡]	1.24–1.43
Fluid and electrolyte	1.32 [*]	1.07–1.62
Congestive heart failure	1.29 [†]	1.09–1.54
Hypertension	1.17 [‡]	1.09–1.25

* $P < 0.05$; $^†P < 0.01$; $^‡P < 0.001$.

CI = confidence interval, OR = odds ratio.



Corticophobia

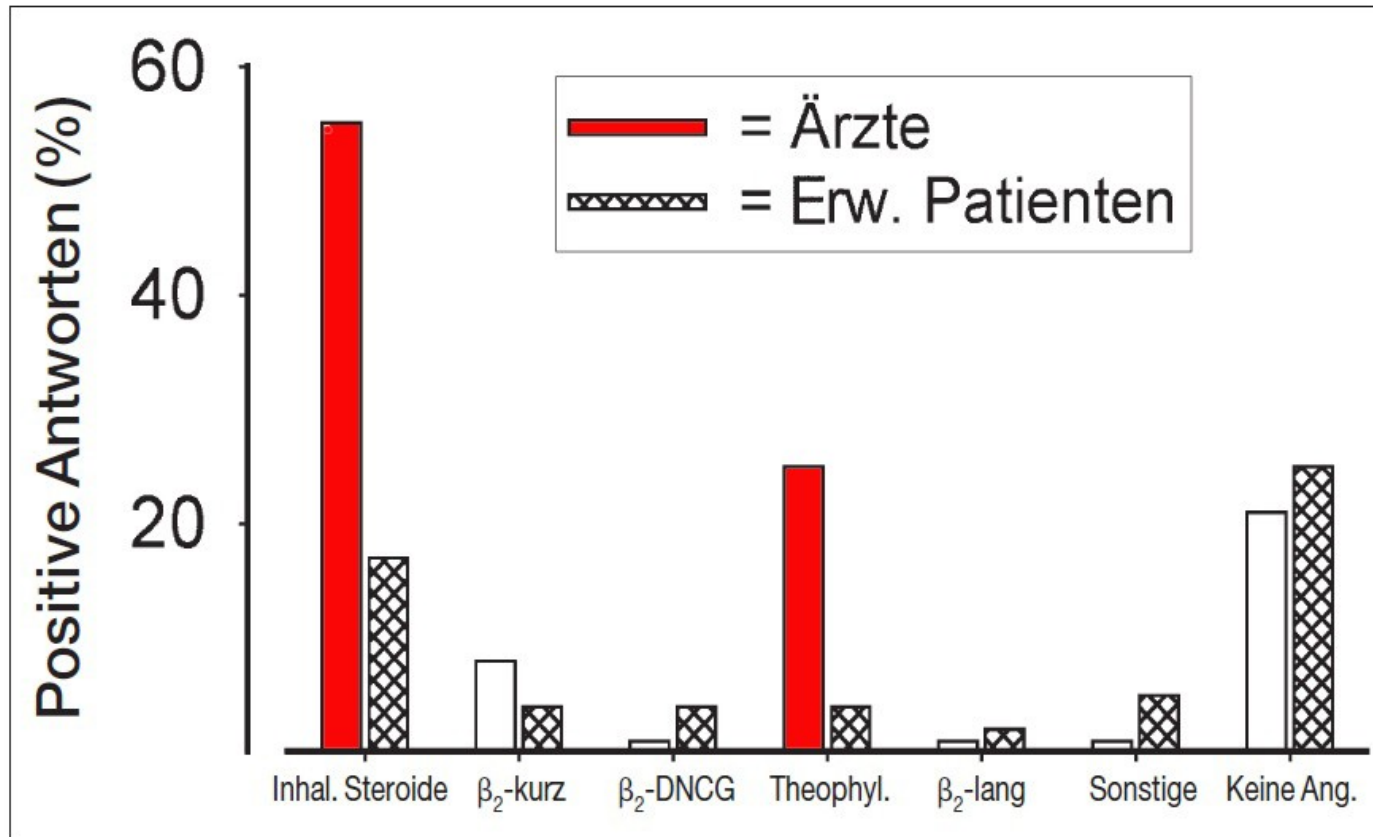


Abbildung 1. Antworten auf die Frage: „Auf welches Medikament möchten Sie am liebsten verzichten?“ Die befragten Ärzte sollten auf die gleiche Frage antworten und die von ihren Patienten erwartete Einschätzung zu dieser Frage nennen. Auffallend ist die Differenz zwischen Arztein-schätzung und Patientenmeinung bei inhalativen Steroiden und Theophyllin.

Corticophobia

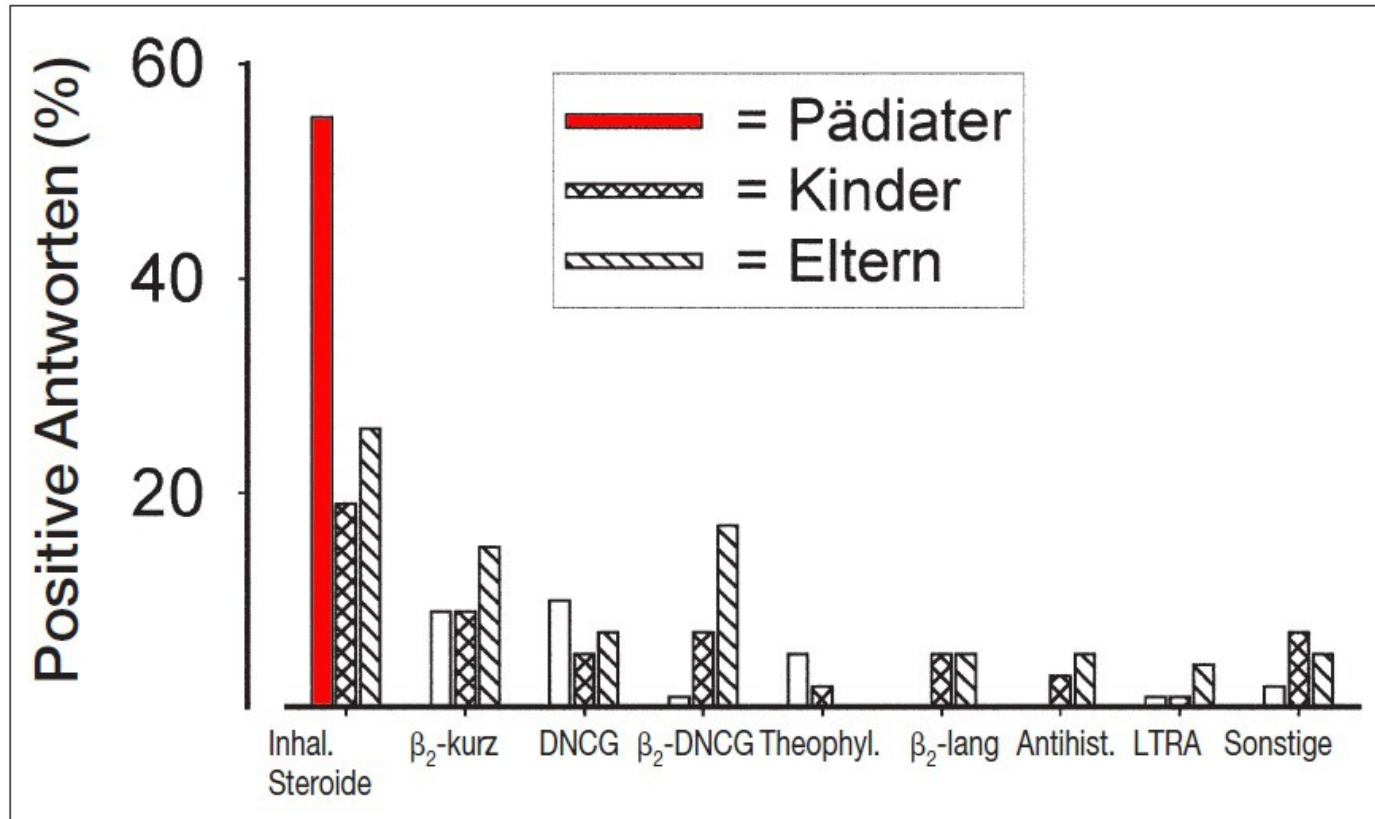
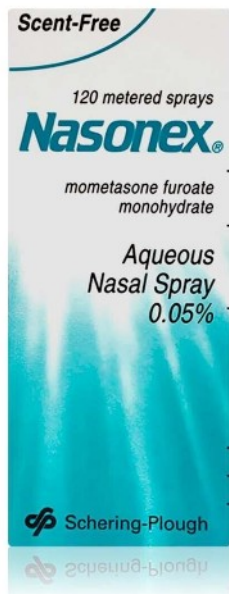
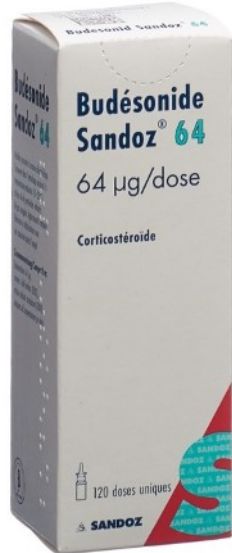


Abbildung 2. Antworten auf die Frage: „Auf welches Medikament möchten Sie/möchtest Du am liebsten verzichten?“ Die befragten Ärzte sollten auf die gleiche Frage antworten und die von ihren Patienten (Kinder/Jugendliche) erwartete Einschätzung zu dieser Frage nennen. Auffallend ist hinsichtlich der Beurteilung der Steroidtherapie die Differenz der Arzteinschätzung zur Patientenmeinung (Erwachsene, Kinder und deren Eltern). LTRA: Leukotrienrezeptorantagonisten.

Nasal Corticosteroids – Side Effect

- Very little
- Glaucoma (responders/non responders – work with ophthalmologist)
- Certain individuality – listen/inquire/change brand
- Discuss side effects of chronic vasoconstrictor abuse
- Reassure
- Extend frequency /interval / maintenance dose/patient finds best regimen (tailored treatment)



Treatment – intranasal topical corticosteroids

agent	brand ®	systemic bioavailability	lowest price
Mometason Furoat	Nasonex	<0.1%	19.-/140dos
Fluticason Furoat	Avamys	0.5%	25.-/120dos
Triamcinolon	Nasacort	46%	26.-/120dos
Fluticason Propionat	Nasofan Flutinas Dymista	<1%	28.-/120dos 40.-/28dos 42.-/120dos
Budesonid	Rhinocort Cortinasal	100% (90%FPE)	17.-/120dos 41.-/200dos

Conclusions

- Define the main symptom, it may change the workup and treatment
- Try to establish an adequate diagnosis - examine (mucosa/structural/sinus) – look for hyperreactivity and try to find if it is infectious, allergic or non-allergic
- Saline nasal lavages and topical corticosteroids help very often but not always
- Address sensitive topics with the patient
 - Chronicity
 - Adherence
 - Corticophobia
- If no improvement/unclear – Collaborate with ENT

Thank you for your attention!



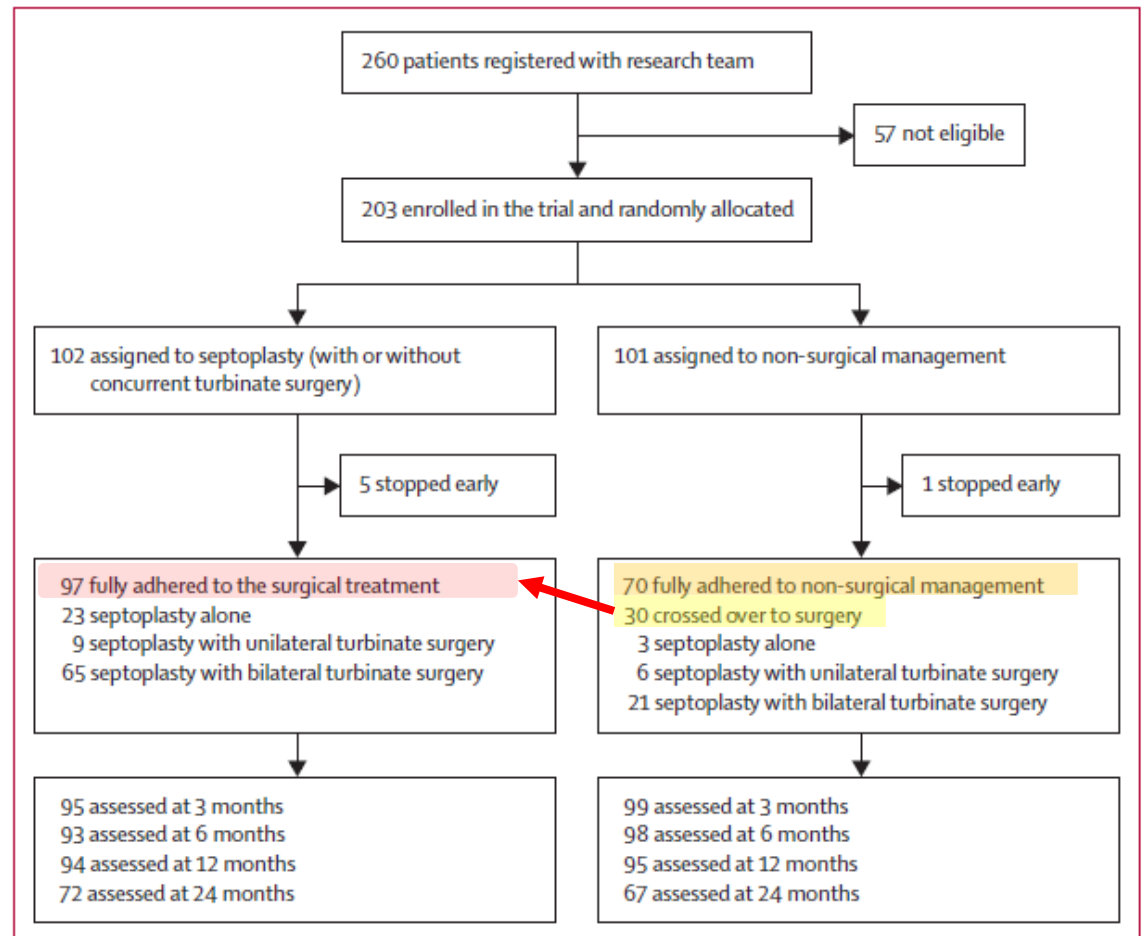
Alberto Giacometti, Le Nez, 1964

Treatment Success

Septoplasty with or without concurrent turbinate surgery
versus non-surgical management for nasal obstruction in
adults with a deviated septum: a pragmatic, randomised
controlled trial

Machteld M H T van Egmond, Maroeska M Rovers, Gejjan Hannink, Carine T M Hendriks, Niels van Heerbeek

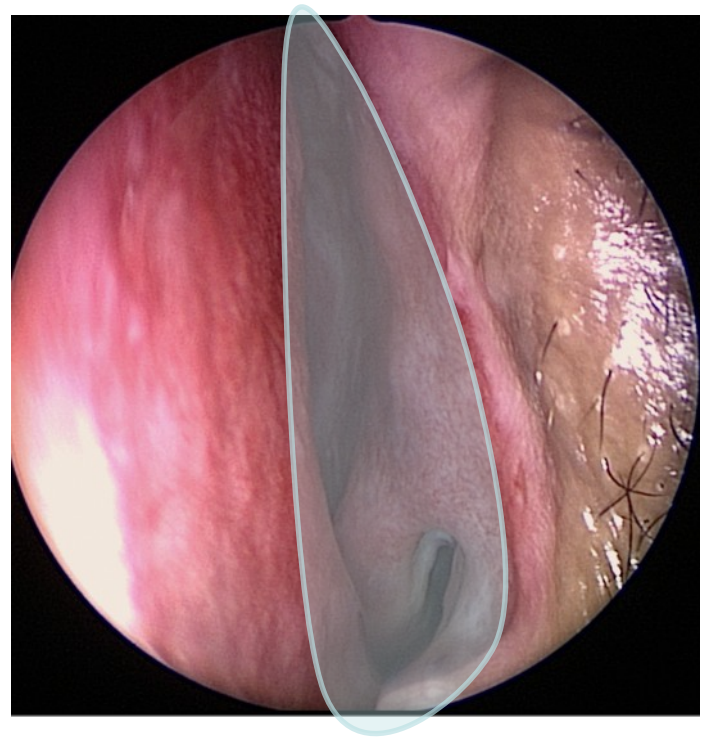
Lancet 2019



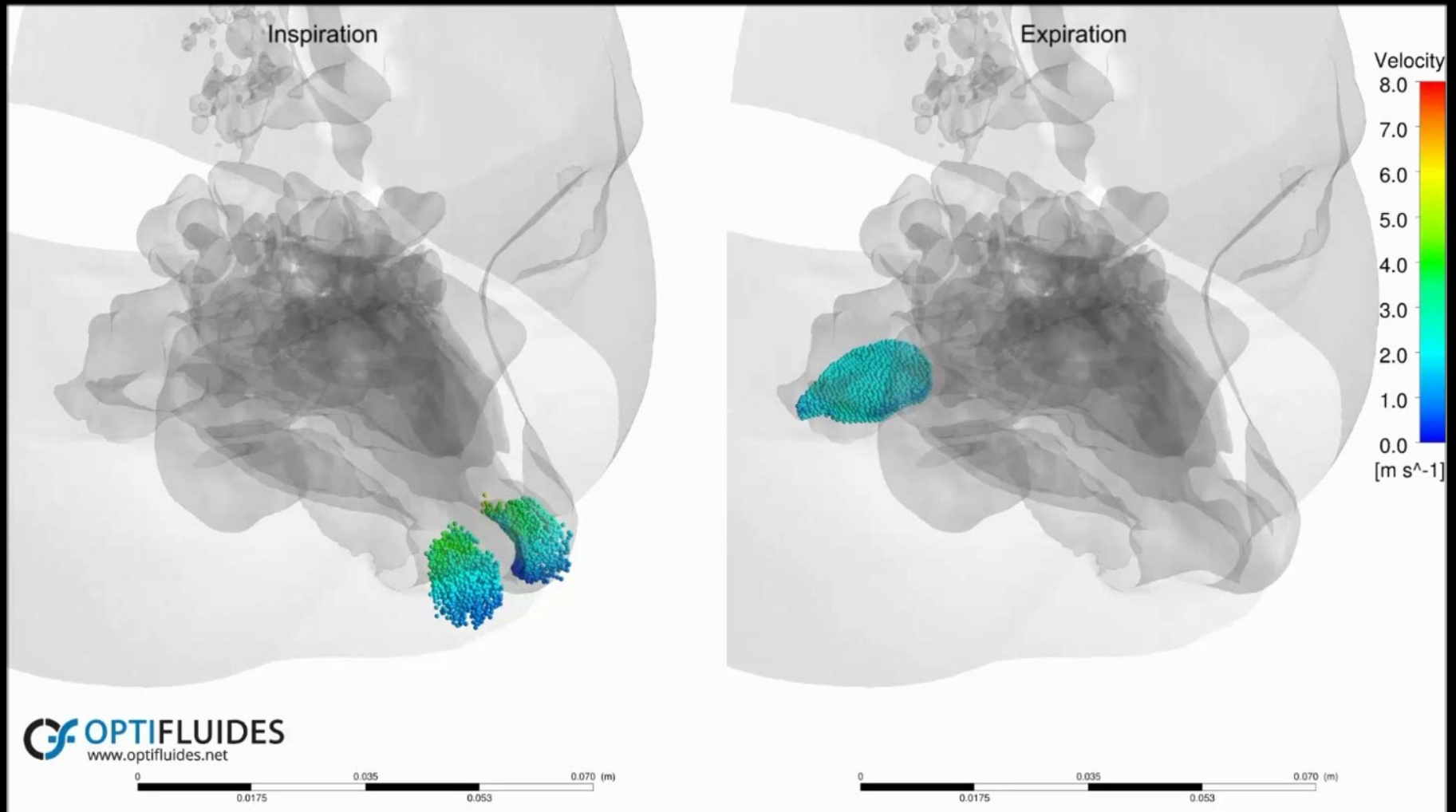
Treatment

- Mechanical:
 - Surgery : Septoplasty and/or Inferior Turbinoplasty
- Mucosal Swelling:
 - Medical treatment of the underlying disease: Mostly local corticosteroids, antihistaminic
- Real Life: **Often both**
 - Surgery alone not enough, but medical treatment in parallel

Think Airflow



Nasal Valve



Mechanical Obstruction of the Nasal Valve most Relevant