



Université Claude Bernard



Lyon 1

Best of Allergologie **ORL et Ophtalmologie**

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Behavioural patterns in allergic rhinitis medication in Europe: A study using MASK-air® real-world data.

222,024 days = 12,122 users

Patients treat themselves according to their symptoms, irrespective of how they understand allergic rhinitis.

AR medication use is not guideline-driven but symptom-driven

Global allergic symptoms

VAS

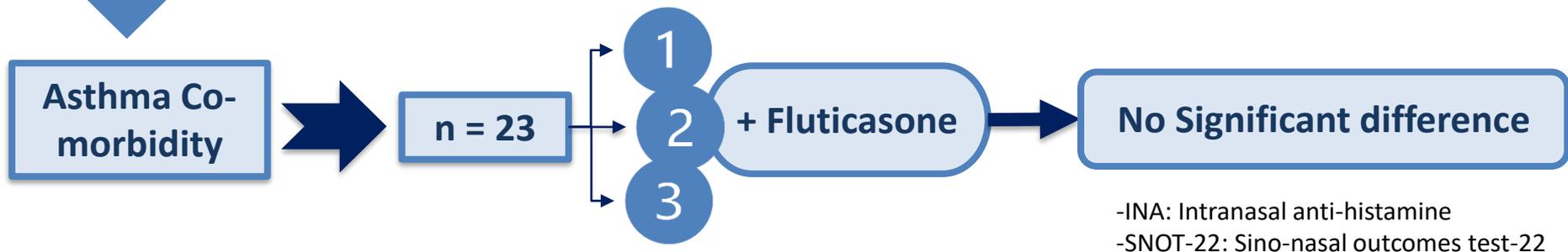
Impact on work

- GAS: Global allergic symptoms
- INCS: Intranasal corticosteroids
- OAH: Oral anti-Histamine
- VAS: Visual analog score
- WP: Work performance

A Comparative Study of Montelukast and Azelastine add on Therapy in Moderate to Severe Allergic Rhinitis Treatment: A Double-Blind Randomized Clinical Trial

Azelastine in conjunction with an **INCS** is recommended for the treatment of moderate to severe AR.

In moderate to severe AR or even asthma management, Montelukast has **no greater** impact than INCS



Omalizumab is effective in the pre-seasonal treatment of seasonal allergic rhinitis

SAR, n = 32



Administration of a **single** injection of 300 mg omalizumab **two weeks before** start of the pollen season achieves better overall control of symptoms and QoL, with significantly reduced allergy symptoms-relieving medication usage, compared with standard pharmacotherapy in SAR patients.

TESS

(Total Eye symptom score)

p=0.046

Better Control

P=0.004

RQLQ

(Rhino conjunctivitis quality of life questionnaire)

P=0.0037

Better QoL

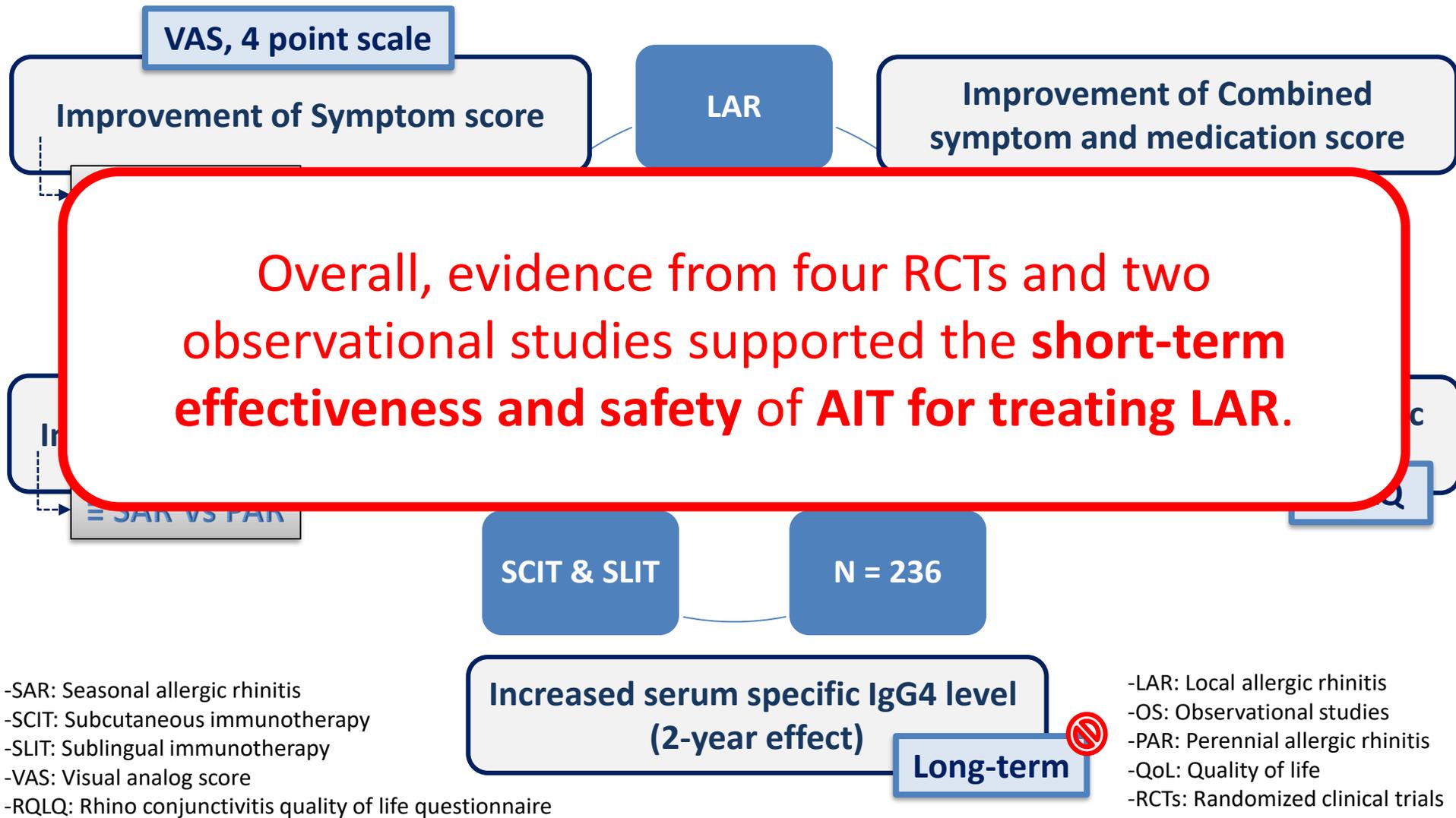
P=0.004

-PP: Pollen period

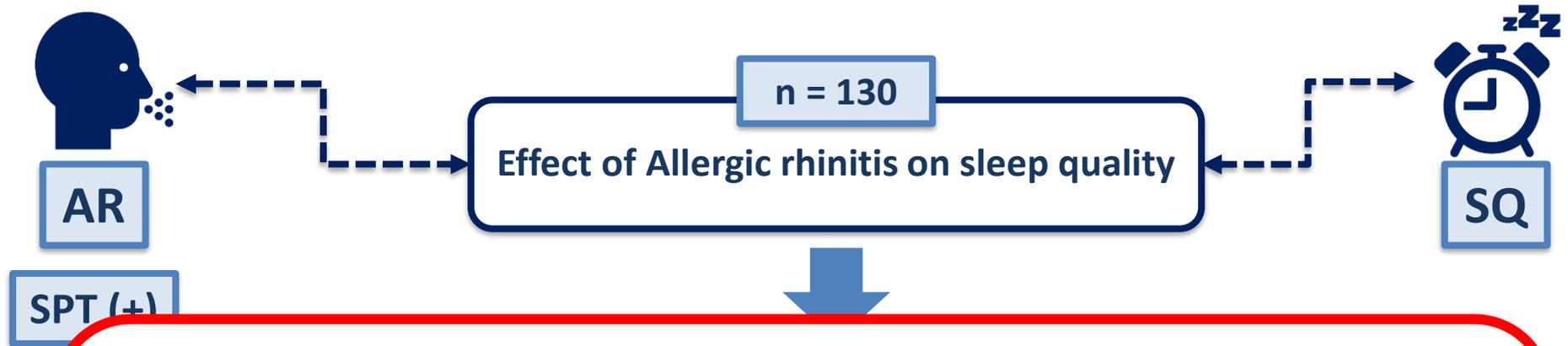
-PPP: Peak Pollen Period

-PPP-PP: Pollen period after peak pollen period

Allergen-specific immunotherapy for local allergic rhinitis: a systematic review and meta-analysis



The effects of Allergic Rhinitis on Sleep Quality



AR is a **risk factor** for poor SQ.

Patients with sleep disturbances should be **questioned** for AR and they should be provided with necessary treatment.



-AR: Allergic rhinitis
-Qs: Questions
-SQ: Sleep quality

GALTectomy increases the risk of Allergic Rhinitis

Table 2. Incidence and hazard ratios of specific type of allergic diseases in each group.

Atopic dermatitis	Events	Person-Years	Incidence ⁺	Crude HR	aHR ^a	aHR ^a forest plot
1. Dual A+T	3	988.86	303.4	1.25 (0.40-3.88)	1.38 (0.45–4.27)	
2. Appendectomy	1,628	896,961.05	181.54	0.75* (0.71-0.79)	0.95 (0.91–1.00)	
3. Tonsillectomy	269	105,184.54	255.7	1.06 (0.94-1.19)	0.96 (0.85–1.08)	
4. Non surgery	240,874	99,436,670.01	242.2	Ref.	Ref.	
Allergic rhinitis	Events	Person-Years	Incidence	Crude HR	aHR ^a	
1. Dual A+T	35	875.04	40.0	3.38* (2.42-4.70)	3.17* (2.28–4.42)	
2. Appendectomy	10,301	862,128.58	12.0	1.01 (0.99-1.03)	1.11* (1.09–1.13)	
3. Tonsillectomy	3,511	90,757.50	38.7	3.27* (3.16-3.38)	3.09* (2.99–3.20)	
4. Non surgery	1,136,485	95,935,992.03	11.9	Ref.	Ref.	
Asthma	Events	Person-Years	Incidence	Crude HR	aHR ^a	
1. Dual A+T	4	987.41	4.1	1.15 (0.43-3.07)	1.34 (0.50–3.57)	
2. Appendectomy	2,837	892,686.78	3.2	0.91* (0.87-0.94)	1.07* (1.03–1.11)	
3. Tonsillectomy	392	104,715.03	3.7	1.07 (0.97-1.18)	1.14* (1.03–1.25)	
4. Non surgery	348,044	99,111,868.49	3.5	Ref.	Ref.	

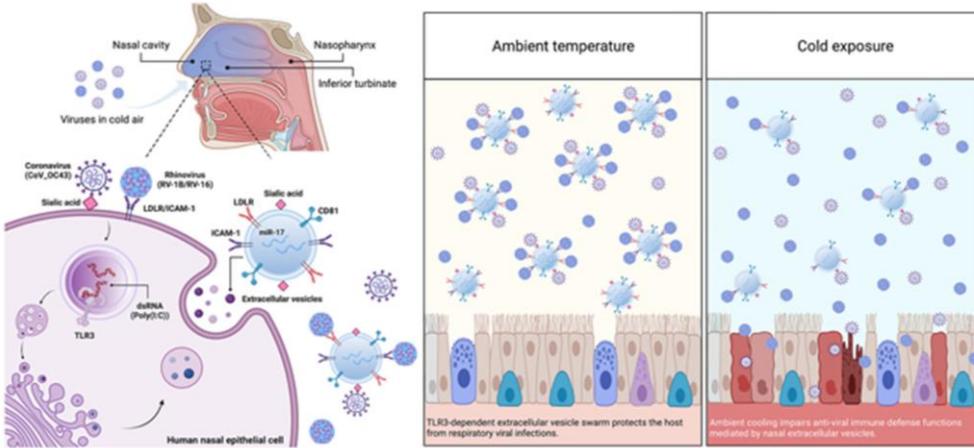
A: appendectomy, T: tonsillectomy; IR, ⁺incidence rate was incidences of per 1,000 person-years. HR, hazard ratio; aHR, adjusted hazard ratio; CI, confidence interval

^a adjust for age, sex, and CCI score

GALT= Gut Associated Lymphoid Tissue

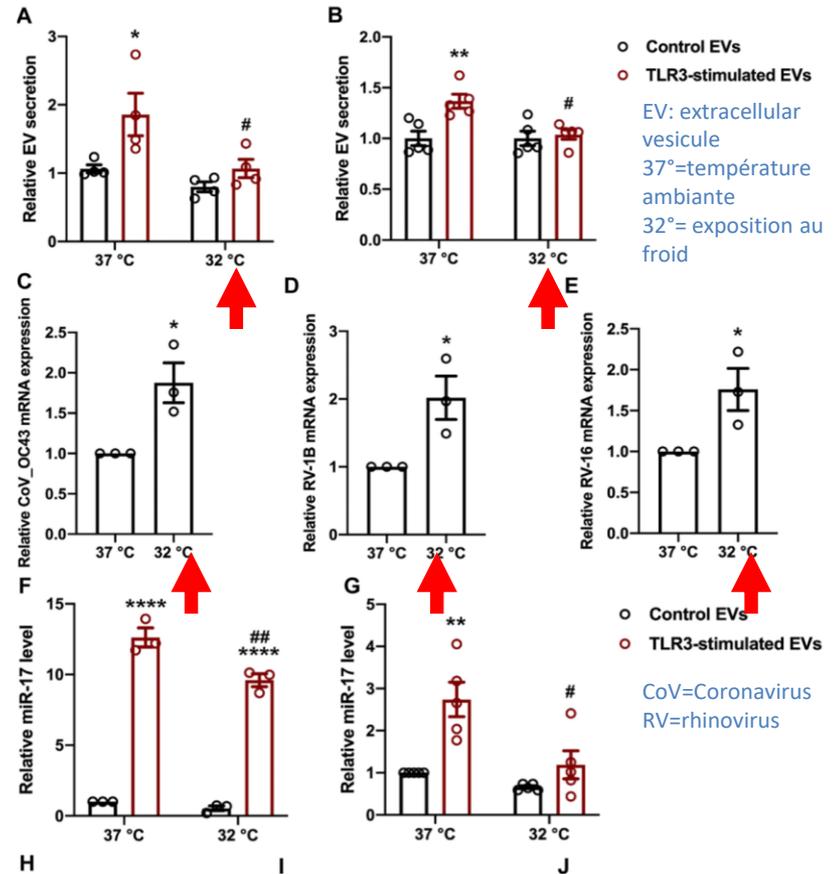
Le froid altère l'immunité anti virale

Cold Exposure Impairs Extracellular Vesicle Swarm Mediated Nasal Anti-Viral Immunity



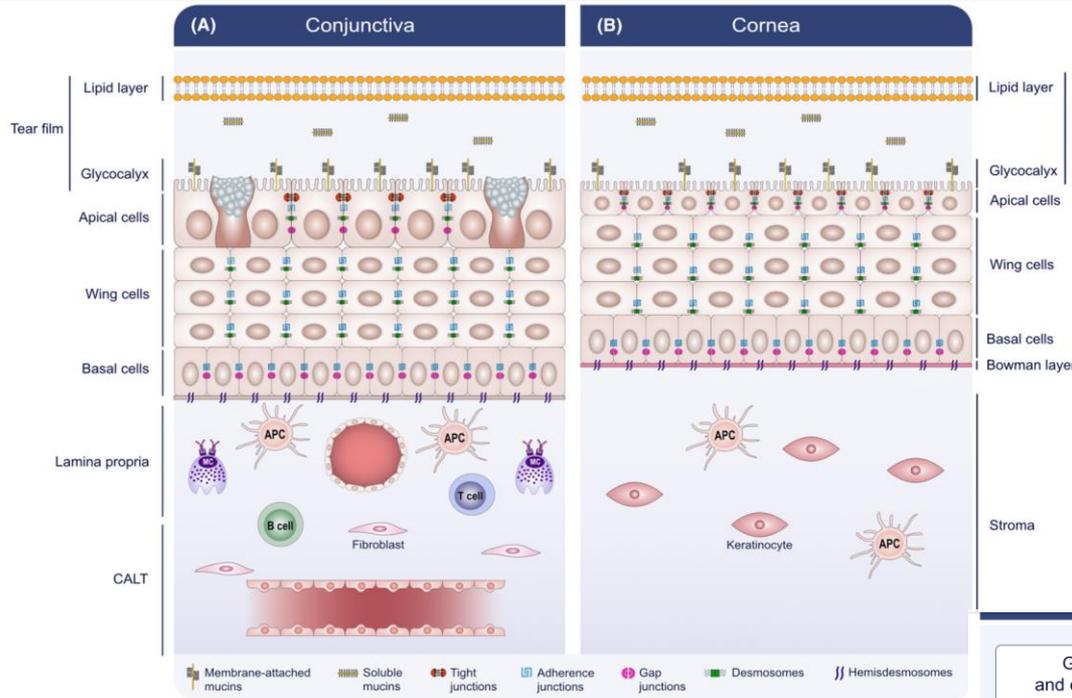
All of experiments described in this article including TLR3 stimulation by poly(I:C) and cold exposure were performed *in vitro* on primary human nasal epithelial cells and turbinate tissue explants.

Abbreviations: CD81, Cluster of differentiation 81; dsRNA, Double-stranded RNA; ICAM-1, Intercellular adhesion molecule 1; LDLR, Low-density lipoprotein receptor; miR, MicroRNAs; Poly(I:C), Polyinosinic-polycytidylic acid; TLR3, Toll-like receptor 3



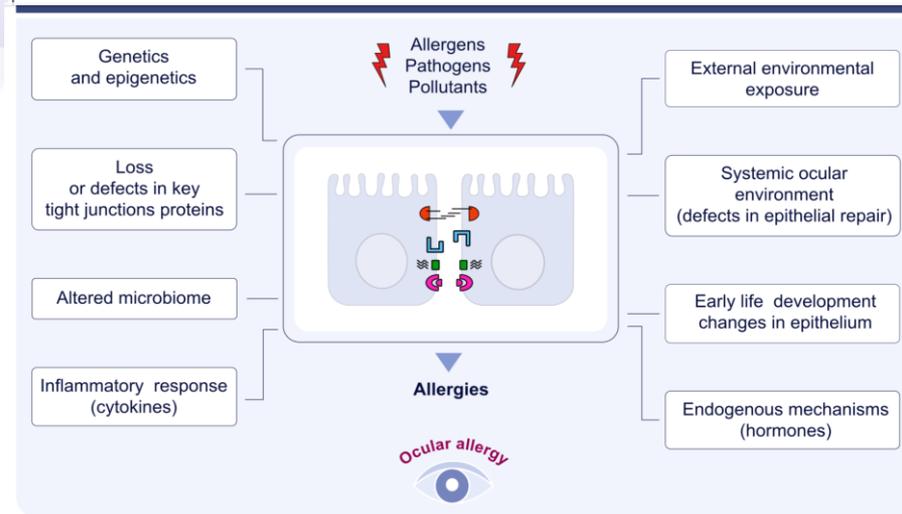
Huang D, Taha MS, Nocera AL, Workman AD, Amiji MM, Bleier BS. Cold exposure impairs extracellular vesicle swarm-mediated nasal antiviral immunity. *J Allergy Clin Immunol.* 2022 Nov 28;S0091-6749(22)01423-3.

La barrière épithéliale est altérée dans l'allergie oculaire



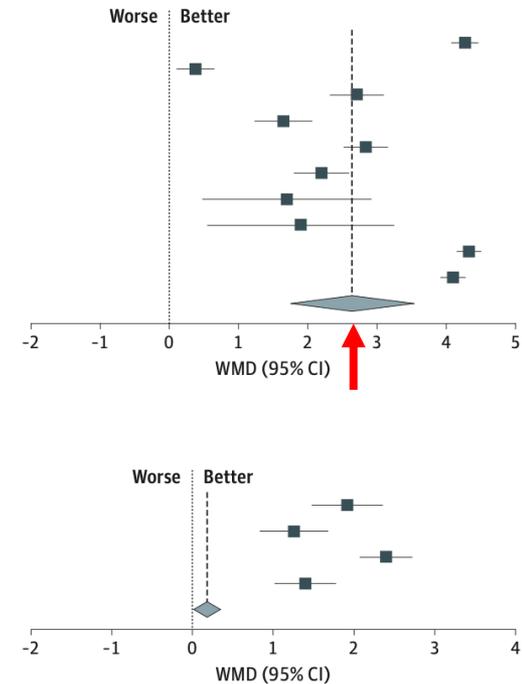
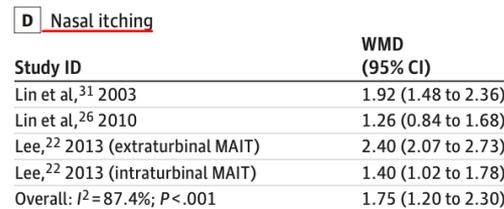
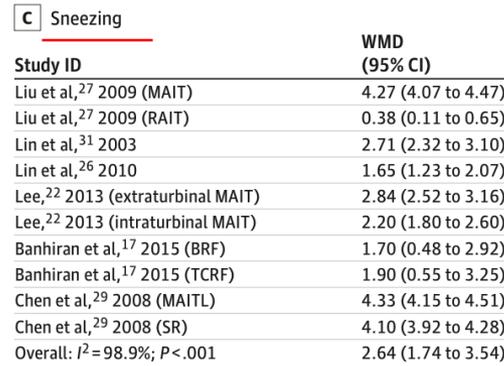
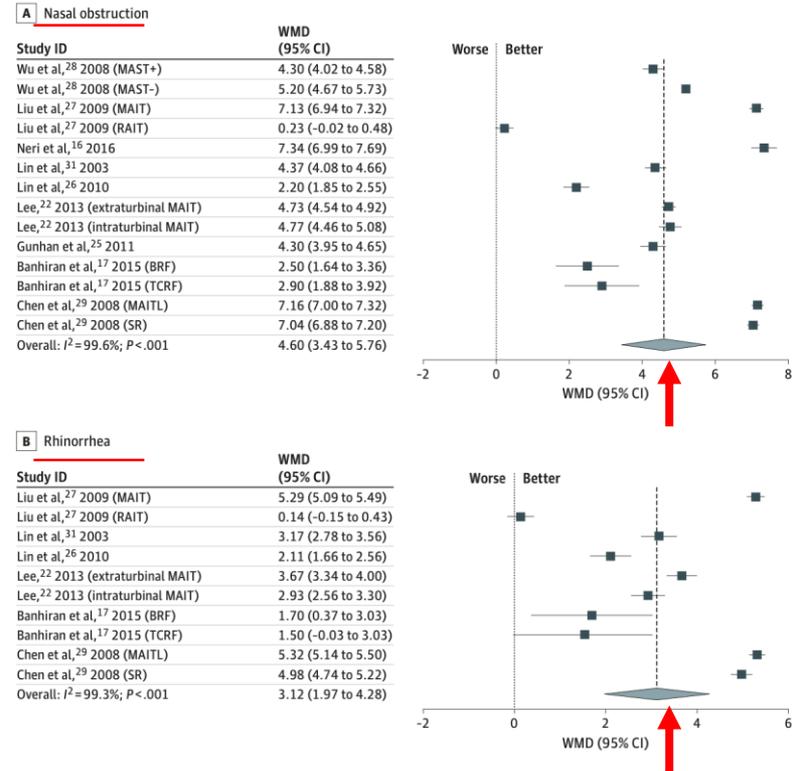
Altération multifactorielle:

- Génétique,
- Environnementale,
- Inflammatoire,
- Hormonale.



La turbinectomie est efficace dans la rhinite chronique

Figure 2. Forest Plots Comparing Nasal Symptoms Before and After Turbinate Surgery



Turbinectomie = ablation cornets inférieurs du nez

Les polluants atmosphériques entraînent une augmentation de la consommation de soins liée à la rhinite allergique

Les polluants atmosphérique entraine une augmentation de la consommation de soins liée à la rhinite allergique

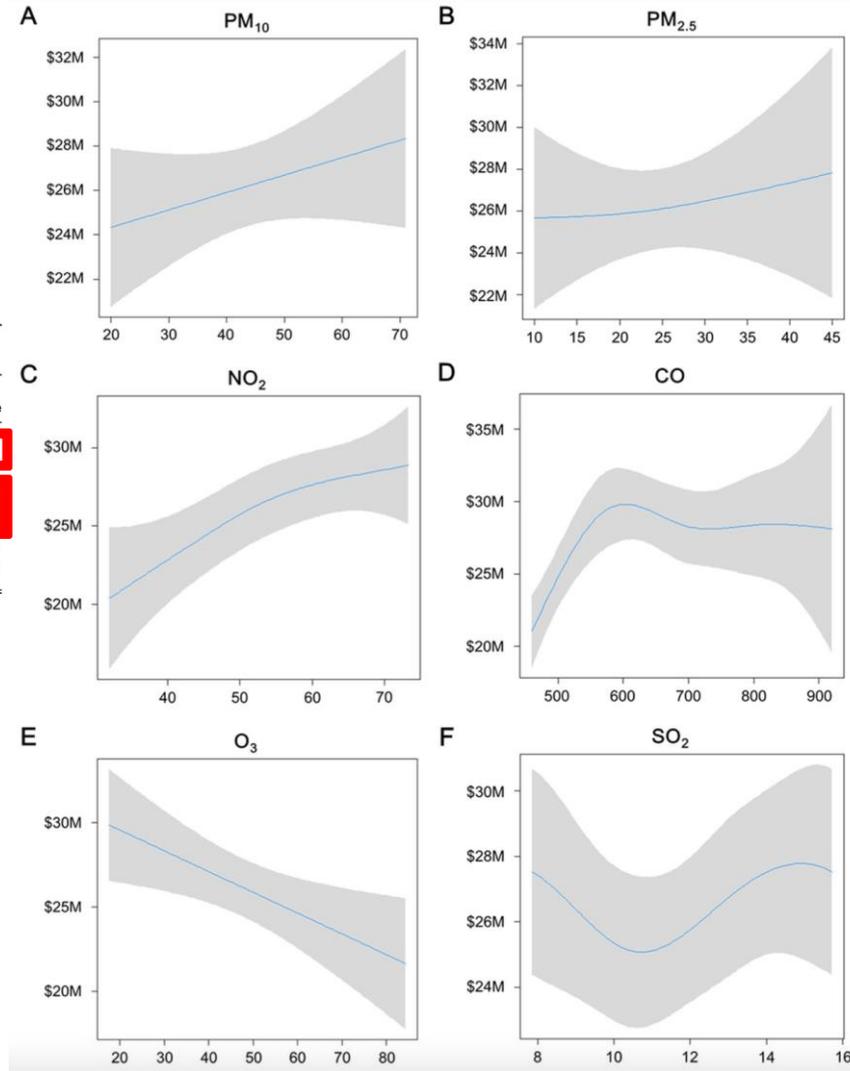


TABLE II.

Correlation between Concentration of Air Pollutant and the Medical Cost of Allergic Rhinitis by Time-series Analysis.

	Regression coefficient (95% confidential interval)	Percentage increase in medical cost of allergic rhinitis per 1 SD $\mu\text{g}/\text{m}^3$ (95% confidence interval)	<i>p</i> -value
PM ₁₀	117.46 (1.19–233.73)	6.22 (0.06–12.37)	0.048
PM _{2.5}	106.58 (1.68–211.48)	5.58 (0.09–11.07)	0.007
NO ₂	241.72 (129.45–353.98)	11.27 (6.03–16.50)	<0.001
CO	22.45 (14.40–30.50)	11.05 (7.09–15.01)	<0.001
O ₃	24.75 (–142.64–192.14)	1.73 (–9.95–13.40)	0.772
SO ₂	277.24 (–879.13–1433.61)	2.14 (–6.78–11.05)	0.638

Bold values indicates statistical significance $p < 0.05$.

Une augmentation de PM10, de NO2 et de Co entraine une augmentation des couts pour le système de soins



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Merci