OP-041 [Apitherapy]
Anatolian Propolis as a Natural Remedy for Allergic Rhinitis: A Combined Turkish and European Study

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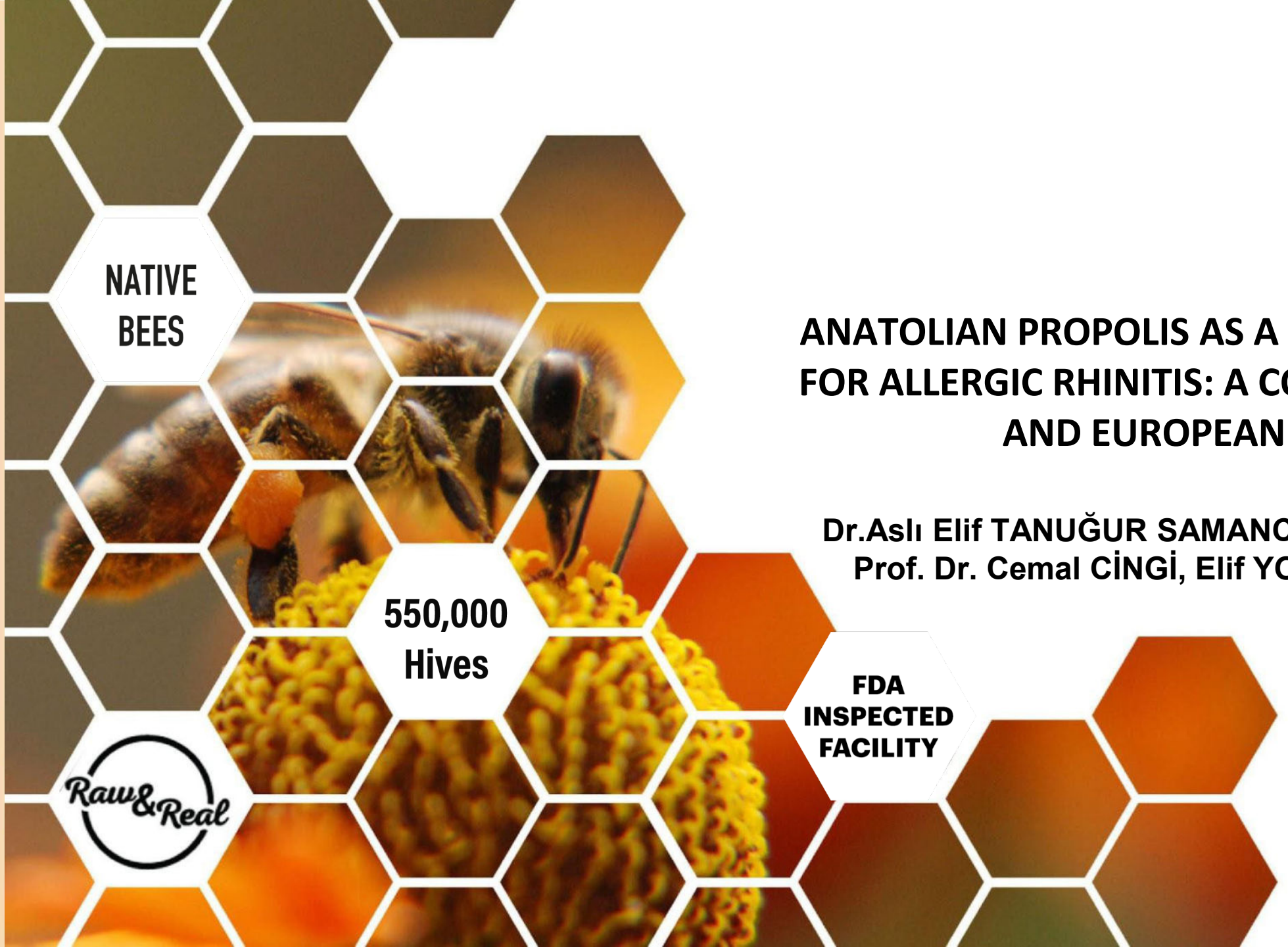
This study evaluates the efficacy of a nasal spray combining Anatolian propolis and hypertonic saline, in alleviating allergic rhinitis (AR) symptoms. By integrating findings from two prospective, multicenter studies conducted in Türkiye and Europe, we aim to assess the spray's impact on symptom relief, quality of life (QoL), and nasal health across diverse populations.
A total of 10,440 patients (10,000 from Türkiye and 440 from various European centers) diagnosed with AR were included in the study. Participants exhibited common AR symptoms such as nasal discharge, sneezing, nasal itching, and nasal obstruction. Each participant received spray (one puff per nostril, three times daily) for three weeks. Total symptom scores, QoL assessments, and otolaryngological examination results were recorded before and after treatment to evaluate clinical efficacy.

Significant improvements were observed in AR symptoms across both study populations ($P < .001$). In the Turkish cohort, the mean total symptom score decreased from 11.09 ± 3.41 to 6.23 ± 2.41 post-treatment, while in the European cohort, it dropped from 15.09 ± 3.15 to 7.42 ± 2.37. QoL scores significantly improved in both groups (Türkiye: 6.44 ± 1.55 to 7.31 ± 1.24, $P < .001$; Europe: 4.97 ± 0.72 to 8.04 ± 0.76, $P < .001$). Additionally, nasal examination results, including conchal color and edema, showed substantial enhancement after treatment ($P < .001$). These findings suggest that spray effectively reduces AR symptoms and improves nasal health across different demographic groups.

The combined data from two large-scale studies confirm that Anatolian propolis-based nasal spray, provides effective symptom relief for allergic rhinitis, enhances patients' quality of life, and reduces nasal inflammation. These findings highlight the potential of propolis-containing nasal sprays as complementary treatments for AR alongside conventional therapies.



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ANATOLIAN PROPOLIS AS A NATURAL REMEDY FOR ALLERGIC RHINITIS: A COMBINED TURKISH AND EUROPEAN STUDY

Dr.Aslı Elif TANUĞUR SAMANCI, Taylan SAMANCI,
Prof. Dr. Cemal CİNGİ, Elif YORULMAZ ÖNDER

APIMONDIA
SCANDINAVIA
SWEDEN | DENMARK | NORWAY
23-27 SEPTEMBER
2025

BACKGROUND

BEE&YOU®
R&D CENTER

Dr. Asli Elif TANUGUR SAMANCI
Food Engineer
BEE&YOU Co-Founder / General Manager

More than 25 years of industrial and academic experience
Quality and Food Safety Management Systems
R&D Projects
Expertise in bee products, determination of authenticity, quality characteristics, contaminants and residues , geographical and botanical origin, sensory analysis, new product development

ITU Food Engineering Undergraduate
ITU Food Engineering Master's **" Determination of Origin in Honey "**
ITU Faculty of Business Administration
"MBA – International Marketing Strategies of Bee Products"
Duzce University, Department of Biology, PhD.
"Development of skin care creams with Bee Venom, Royal Jelly and Propolis"

BEE&YOU R&D CENTER

50 years+ experience

BEE&YOU®
R&D CENTER

- **Dr. Aslı Elif Tanugur ;** Food Scientist (PhD)
- **Taylan Samanci;** Agricultural Engineer (MSc)
- **Prof. Dr. Dilek Boyacioglu;** Professor Dr. in Food Science

R&D / Production

- +750.000 – Exclusively Contracted Beehives
- +10.000 – Contracted Beekeepers
- +200 Employees – R&D Center specialized on Propolis
- +30 Pharmacologists, Food Scientists, Chemists, Biologists, Beekeeping Experts, Food Technicians, Nutritionists
- Largest Producer of Value Added Bee Products in the Region

Expertise in:

- ✓ Beekeeping
- ✓ Bee products and R&D
- ✓ Agricultural Engineering
- ✓ Food Science & Technology

BEEKEEPING IN ANATOLIA

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- **9.225.000 beehives (3nd biggest beekeeping region in the world)**

✓ 75.000 beekeepers
✓ 300.000 people live on beekeeping
✓ One of the largest producers of honey in the World
✓ The largest producer of pine honey
✓ **Rich range of flora, wide range of bee products**…
✓ 12.000 plant species
✓ 3.600 endemic plants
✓ Propolis production: 100 tons
✓ Royal jelly production: 3 tons
✓ Pollen production: 250 tons
✓ Bee bread production: 10 tons
✓ Bee venom production: 100 kg

PRODUCTION STEPS OF RHINAPI

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Sustainable Contracted Beekeeping Model

- ✓ Fair Trade
- ✓ We pass 1% income/per product extra bonus for development of beekeeping.
- ✓ Free training & equipment for our beekeepers
- ✓ Protecting bees, their natural habitat and the environment
- ✓ This model helps to increase the number of bees in the World

Raw Material Bee Products

- ✓ Propolis has 80x more antioxidants compared to pomegranate.
- ✓ Royal Jelly
- ✓ Pollen
- ✓ Bee Bread
- ✓ Bee Venom
- ✓ Raw Honey

Patented Propolis Extraction

- ✓ We developed a patented extraction tecnology for propolis.
- ✓ Our extracts has min. 3 times more antioxidants than the average of the market.

Rhinapi Nasal Spray

- ✓ It has Anatolian Propolis, sodium chloride, deionized water, glycerine, eucalyptus oil.
- ✓ 100% Standardized (every batch is tested and guaranteed active compounds)
- ✓ Natural and certified

Consumption

- ✓ Sales & Distribution & Marketing Operations in 38 Countries
- ✓ Strong Customer Support Service

RHINAPI PROPOLIS NASAL SPRAY

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- ✓ Contains *Anatolian Propolis* and *Hypertonic Saline*
- ✓ Helps relieve nasal congestion
- ✓ Supports the cleansing of the nasal mucosa
- ✓ Improves comfort in allergic rhinitis
- ✓ Provides natural support without causing dryness

Special Phenolic and Flavonoid Profile of Rhinapi Propolis Nasal Spray

- ✓ Caffeic Acid Phenethyl Ester (CAFE)
- ✓ Caffeic Acid
- ✓ Quercetin
- ✓ Krisin
- ✓ Epicatechin
- ✓ P-Coumaric acid
- ✓ Ferulic acid
- ✓ t-Cinnamic acid
- ✓ Apigenın
- ✓ Pinocembrin
- ✓ Luteolin
- ✓ Hesperetin
- ✓ P-Hydroxybenzoic acid
- ✓ Resveratrol
- ✓ Rhamnetin

REPUBLIC OF TÜRKİYE
MINISTRY OF HEALTH
MEDICINES AND MEDICAL DEVICES AGENCY OF TÜRKİYE

THE FIRST AND ONLY MEDICAL DEVICE CONTAINING PROPOLIS IN TURKIYE AND WORLDWIDE…

RHINAPI PROPOLIS NASAL SPRAY

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Rhinapi Propolis Nasal Spray has undergone **Skin Irritation Test** and **Maximization Test for Delayed Hypersensitivity (TS EN ISO 10993-10)**, and ***in vitro* Cytotoxicity Test (ISO 10993-5)**, fulfilling the requirements of the quality management system established according to the **ISO 17025** standard. This quality management system complies with **Good Laboratory Practice (GLP)** requirements.

Produced at BEE&YOU's **ISO 13485:2016**-certified cleanroom facility, Rhinapi Propolis Nasal Spray meets the highest international standards in quality and safety.

WHAT IS ALLERGIC RHINITIS?

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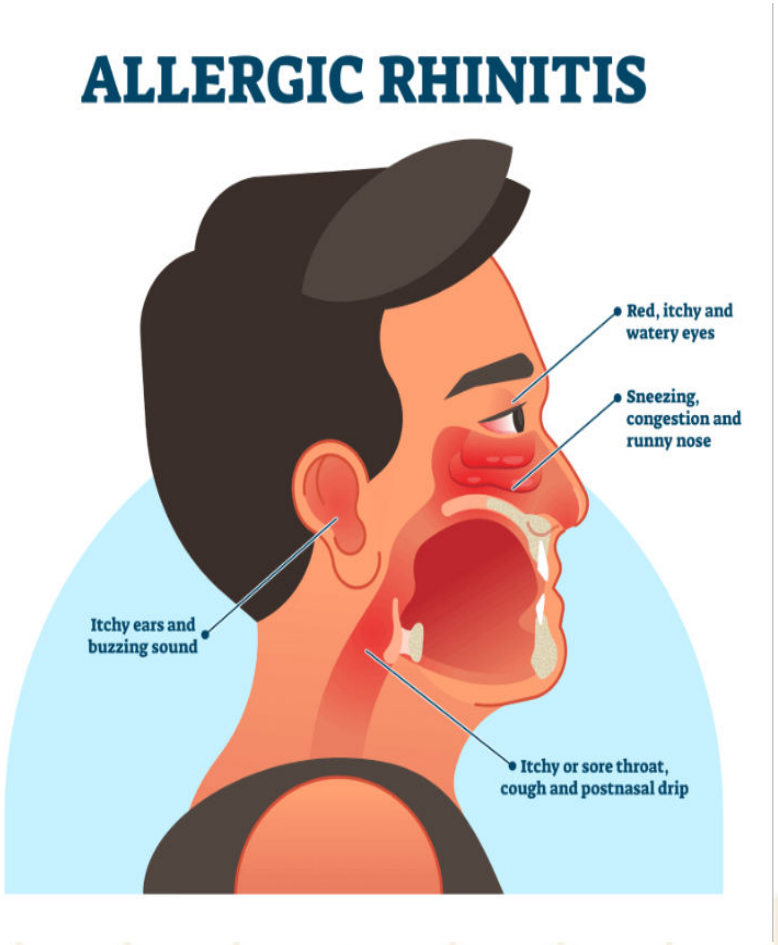
Allergic rhinitis, commonly known as hay fever, is an allergic reaction that affects the nose. It occurs when the immune system overreacts to allergens, such as pollen, dust mites, pet dander, or mold spores.

Symptoms of allergic rhinitis can vary in severity and may occur seasonally (such as during pollen seasons) or throughout the year (perennial allergic rhinitis). Allergic rhinitis is not usually life-threatening, but it can significantly impact a person's quality of life by causing discomfort and interfering with daily activities. Treatment often involves avoiding allergens when possible and using medications like antihistamines, nasal corticosteroids, or decongestants to manage symptoms. In some cases, allergy shots (immunotherapy) may be recommended to desensitize the immune system to specific allergens over time.



AIM OF THE STUDY

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This study aims to investigate the effectiveness of **Rhinapi** nasal spray, which contains propolis, in alleviating symptoms associated with allergic rhinitis.

Study 1 – Türkiye
- **Participants:** 10,000 patients (5028 males, 4972 females).
- **Location:** 50 centers across **Türkiye**
- **Period:** Between **March 2022 and March 2023**

Study 2 – Europe
- **Participants:** 440 patients (251 males, 189 females).
- **Location:** 13 centers across **Europe**
- **Period:** Between **April 2024 and July 2024**

Study focused on measuring:

- Symptom improvement (nasal discharge, sneezing, nasal itching, nasal obstruction).
- Overall symptom score changes.
- Quality of Life (QoL) improvements.
- ENT examination findings (e.g., nasal swelling and concha color).

ELIGIBILITY CRITERIA

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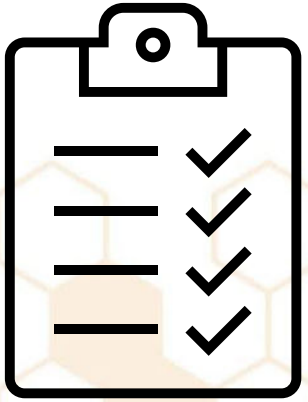
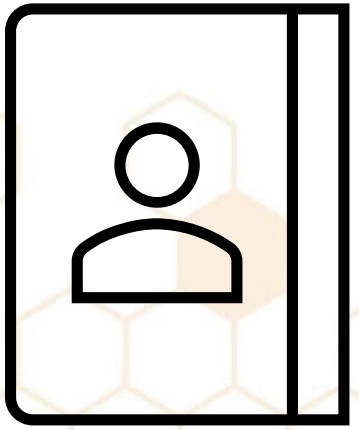
Inclusion Criteria:

- ✓ Volunteering to participate
- ✓ Having symptoms of nasal discharge
- ✓ Having symptoms of sneezing
- ✓ Having symptoms of nasal itching
- ✓ Having symptoms of nasal obstruction

Exclusion Criteria:

- x The patients were without symptoms of nasal discharge, sneezing, nasal itching, or nasal obstruction.
- x The patient is allergic to bee products.
- x Exclusion Criteria and Practices in this Case:
- x Development of an allergic reaction to propolis (Nasal care protocol is stopped in that case)





STUDY PLAN

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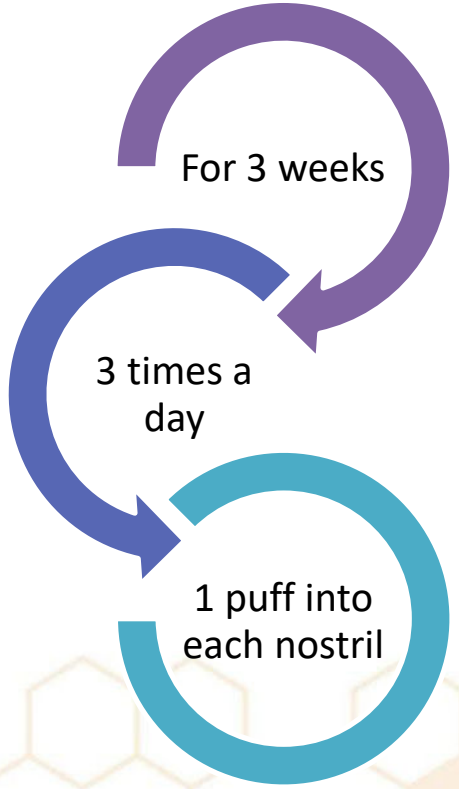
This study was conducted as a prospective, multicenter, observational investigation, adhering to the guidelines of the Declaration of Helsinki. Approval was granted by the Istanbul GETAT Clinical Research Ethics Committee on July 12, 2021, under decree number 25. Verbal consent was obtained from all participants.

The European study was conducted on patients from ***Romania, Germany, Italy, Belgium, the United Kingdom, Bulgaria, North Macedonia, Greece***, and ***France***.



STUDY PLAN

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Survey Study

- Participants were surveyed about allergic rhinitis symptoms (runny nose, sneezing, nasal itching, nasal congestion).

Total Symptom Score

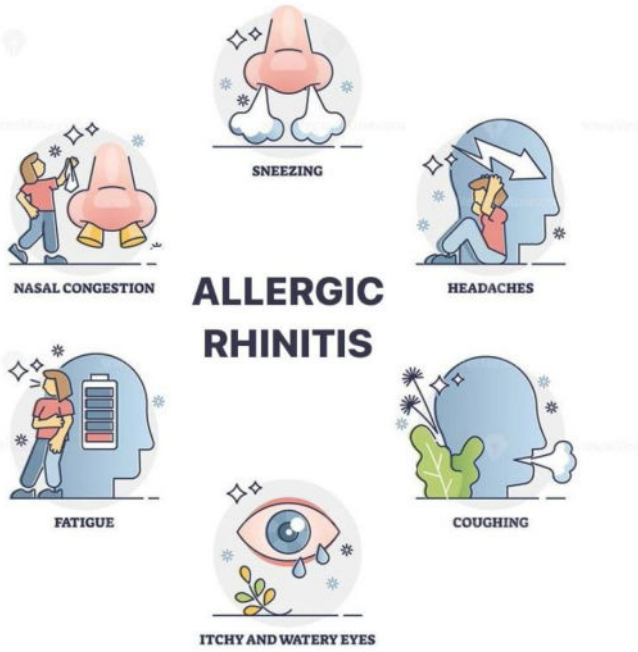
- The minimum severity of symptoms was accepted as 1, and the maximum severity was accepted as 5.
- Total Symptom Scores were scored between 1 and 20.

Quality of Life Score

- The lowest quality was specified as 1, and the highest quality was specified as 10.

Otorhinolaryngological Examination

- Concha colors were scored from 1 to 3.
- The degree of edema in the turbinates was scored between 1 and 3.



RESULTS IN EUROPE STUDY

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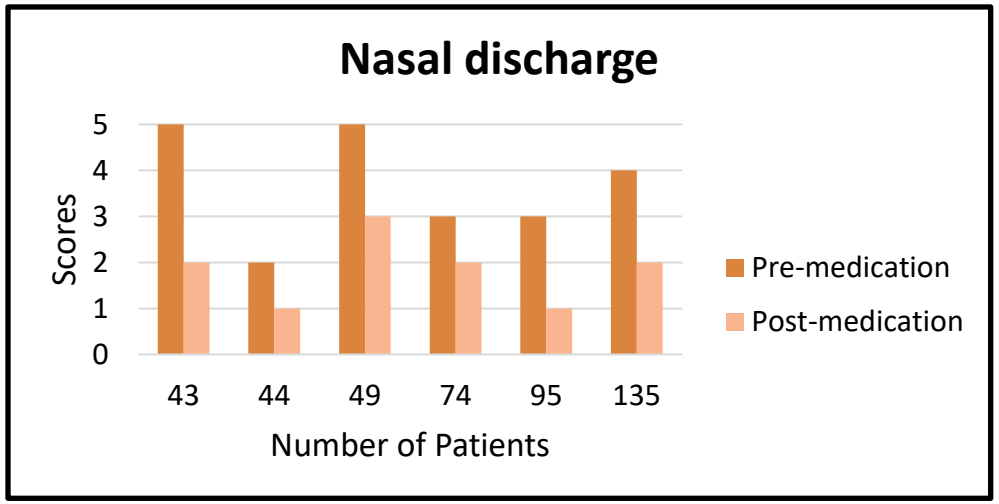
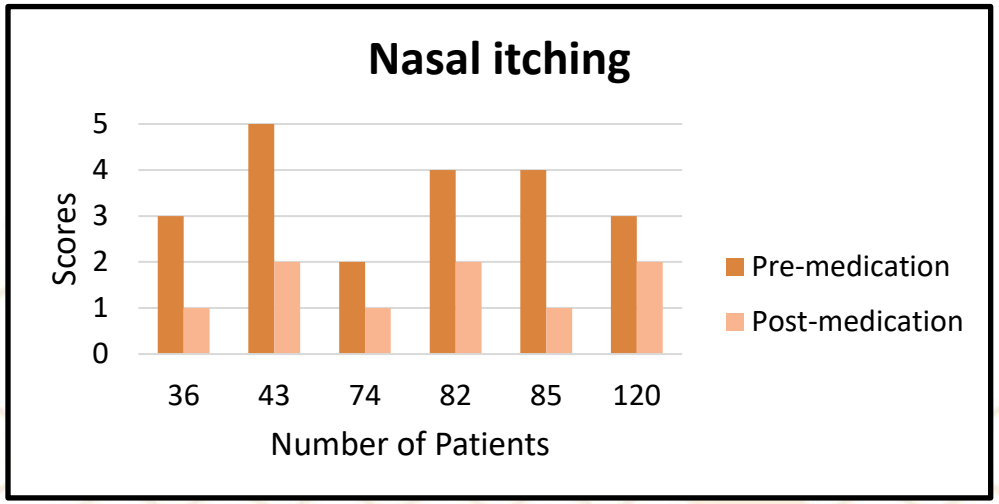


None (1), Mild (2), Moderate (3), Severe (4), Extremely severe (5)

"A decrease in nasal discharge scores was observed in all patients. A 20% reduction occurred in 118 patients, a 40% reduction in 279 patients, and a 60% reduction in 43 patients."



None (1), Mild (2), Moderate (3), Severe (4), Extremely severe (5)

"A decrease in nasal itching scores was observed in all patients. A 20% reduction occurred in 194 patients, a 40% reduction in 118 patients, and a 60% reduction in 128 patients."

RESULTS IN EUROPE STUDY

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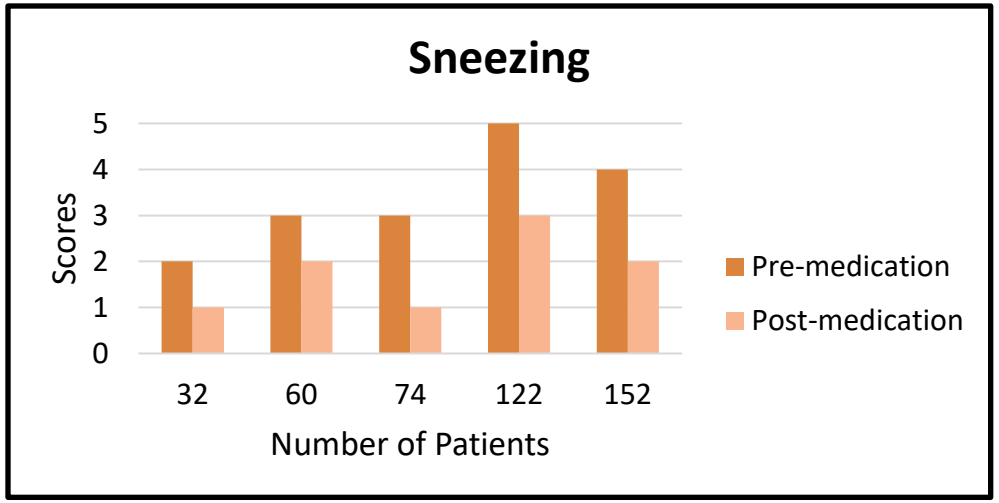
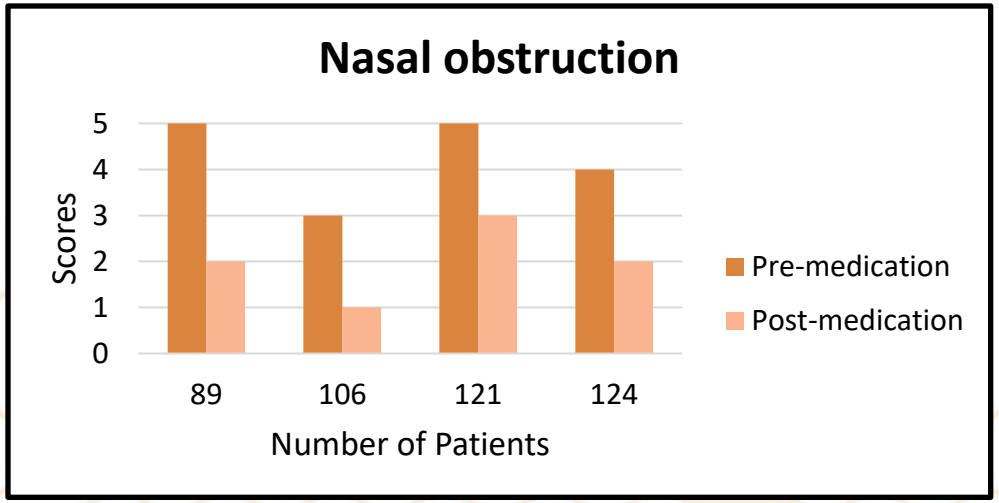


None (1), Mild (2), Moderate (3), Severe (4), Extremely severe (5)

"A decrease in sneezing scores was observed in all patients. A 20% reduction occurred in 92 patients, a 40% reduction in 348 patients."

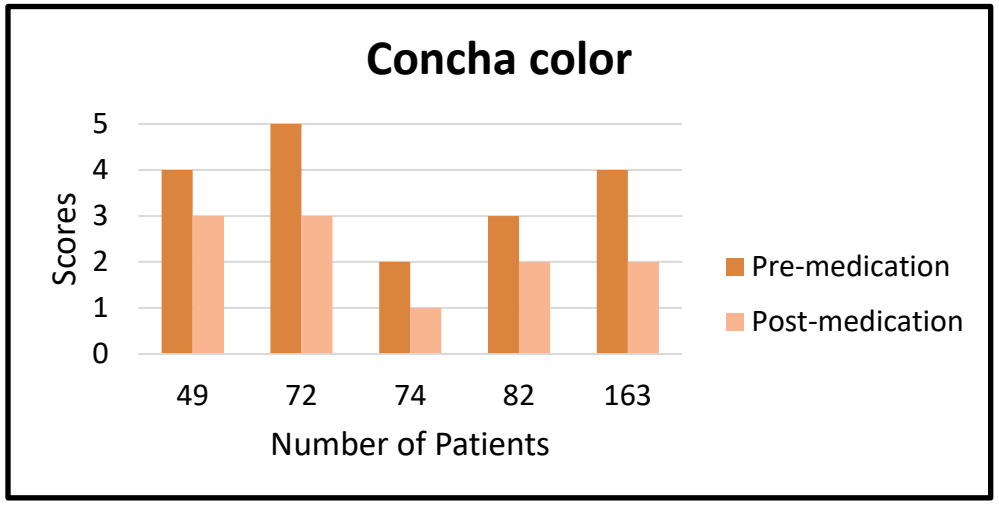


None (1), Mild (2), Moderate (3), Severe (4), Extremely severe (5)

"A decrease in nasal obstruction scores was observed in all patients. A 40% reduction in 351 patients, and a 60% reduction in 89 patients."

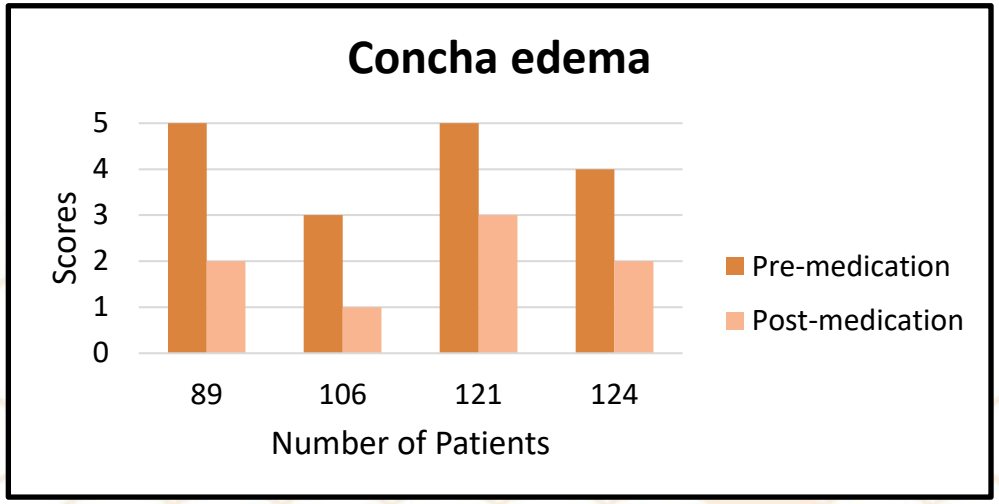
RESULTS IN EUROPE STUDY

BEE&YOU®
R&D CENTER



Natural (1), Mild pale (2), Moderate pale (3), Severe pale or purple (4), Extremely pale or purple (5)

"A decrease in concha color scores was observed in all patients. A 20% reduction occurred in 205 patients, a 40% reduction in 235 patients.



None (1), Mild (2), Moderate (3), Severe (4), Extremely severe (5)

"A decrease in concha edema scores was observed in all patients. A 40% reduction in 351 patients, and a 60% reduction in 89 patients."

RESULTS IN EUROPE STUDY

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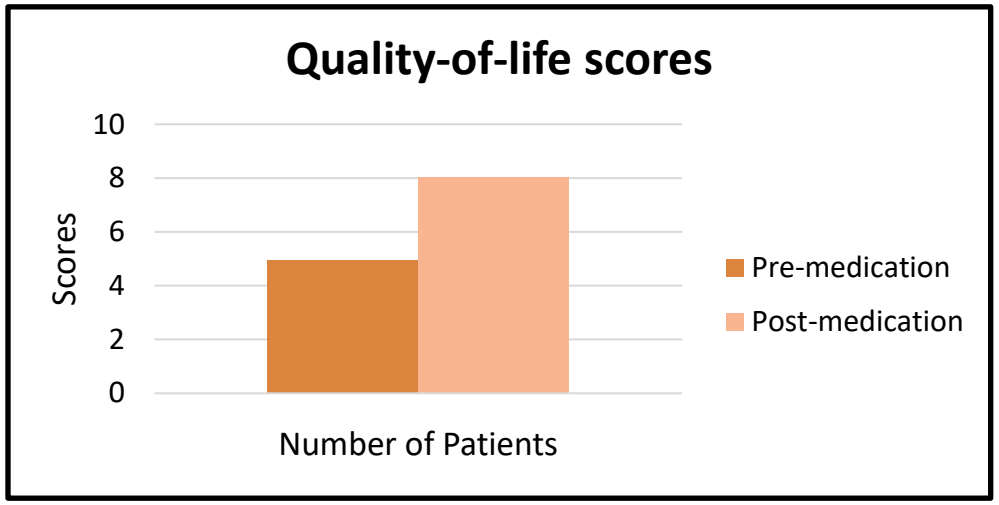
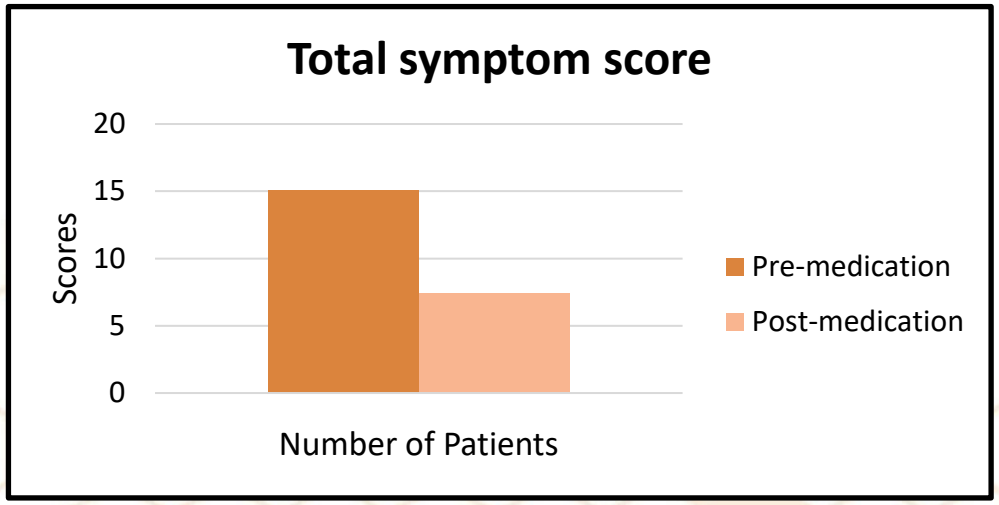


Quality-of-life scores (1-10)

"An improvement in quality-of-life scores was observed in all patients, increasing from a mean value of 5 to 8 following medication."



Total symptom score (1-20)

"A significant reduction in total symptom scores was observed in all patients, decreasing from a mean value of 15 to 7 after medication."

RESULTS IN TURKIYE STUDY

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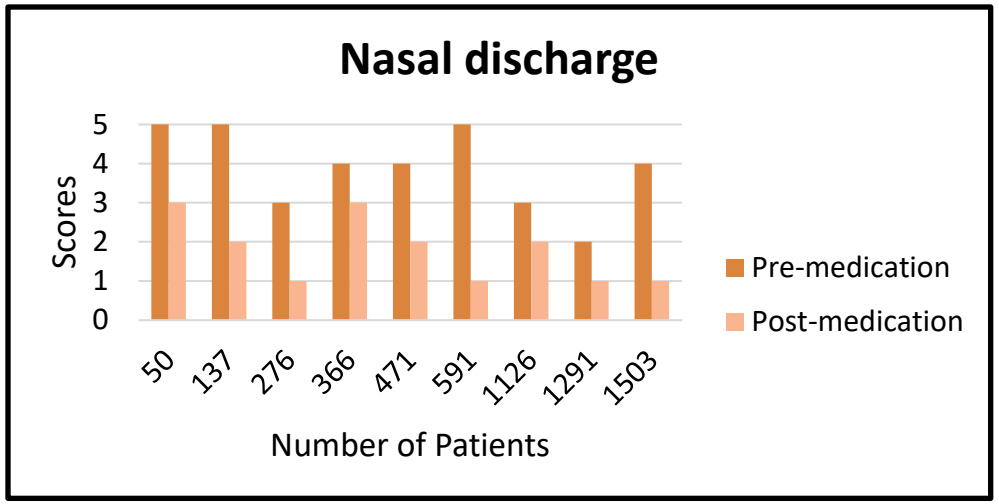
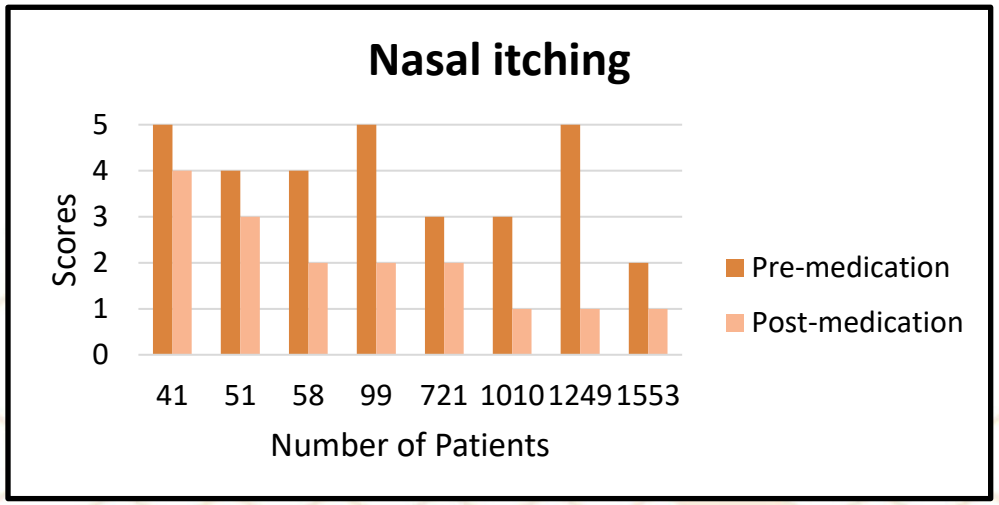


None (1), Mild (2), Moderate (3), Severe (4), Extremely severe (5)

"A decrease in nasal discharge scores was observed in 5811 patients. A 20% reduction occurred in 2783 patients, a 40% reduction in 797 patients, a 60% reduction in 1640 patients, and an 80% reduction in 591 patients."



None (1), Mild (2), Moderate (3), Severe (4), Extremely severe (5)

"A decrease in nasal itching scores was observed in 4782 patients. A 20% reduction occurred in 2366 patients, a 40% reduction in 1068 patients, a 60% reduction in 99 patients, and an 80% reduction in 1249 patients."

RESULTS IN TURKIYE STUDY

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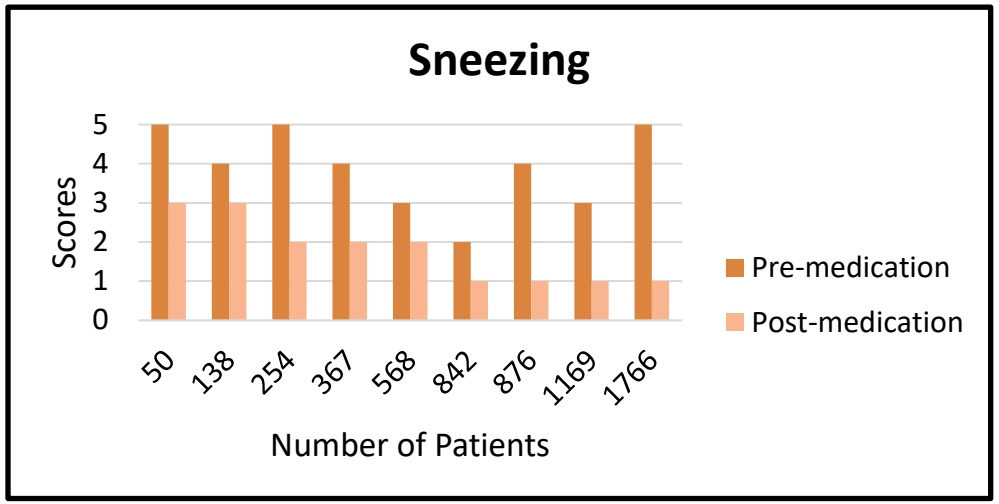
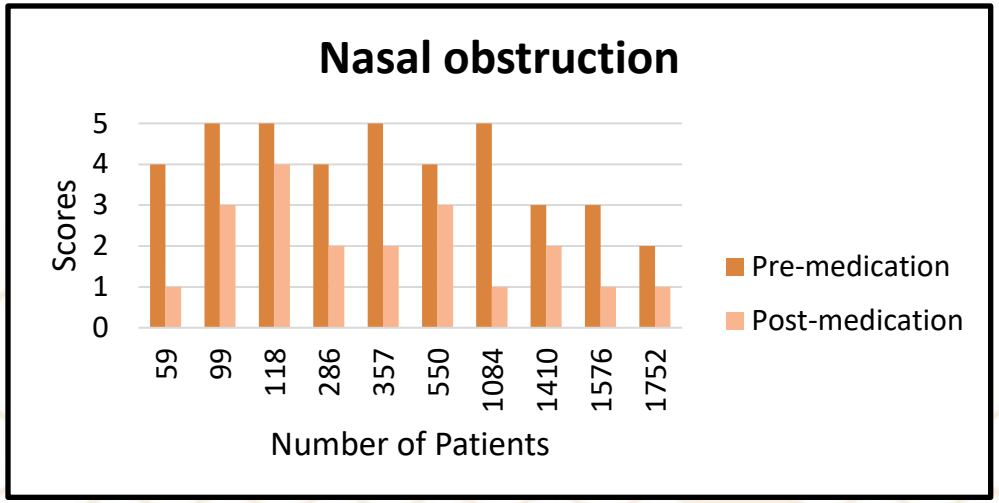


None (1), Mild (2), Moderate (3), Severe (4), Extremely severe (5)

"A decrease in sneezing scores was observed in 6030 patients. A 20% reduction occurred in 1548 patients, a 40% reduction in 1586 patients, a 60% reduction in 1130 patients, and an 80% reduction in 1766 patients."



None (1), Mild (2), Moderate (3), Severe (4), Extremely severe (5)

"A decrease in nasal obstruction scores was observed in 7291 patients. A 20% reduction occurred in 3830 patients, a 40% reduction in 1961 patients, a 60% reduction in 416 patients, and an 80% reduction in 1084 patients."

RESULTS IN TURKIYE STUDY

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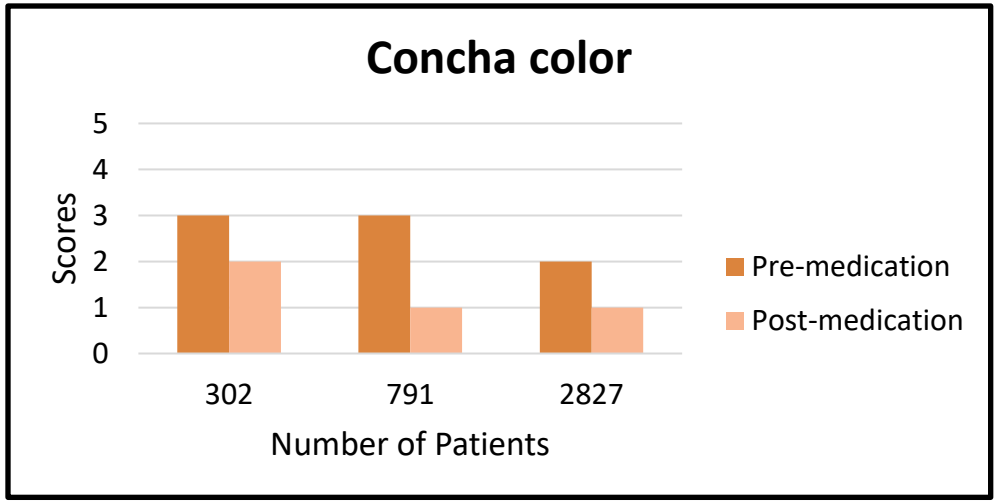
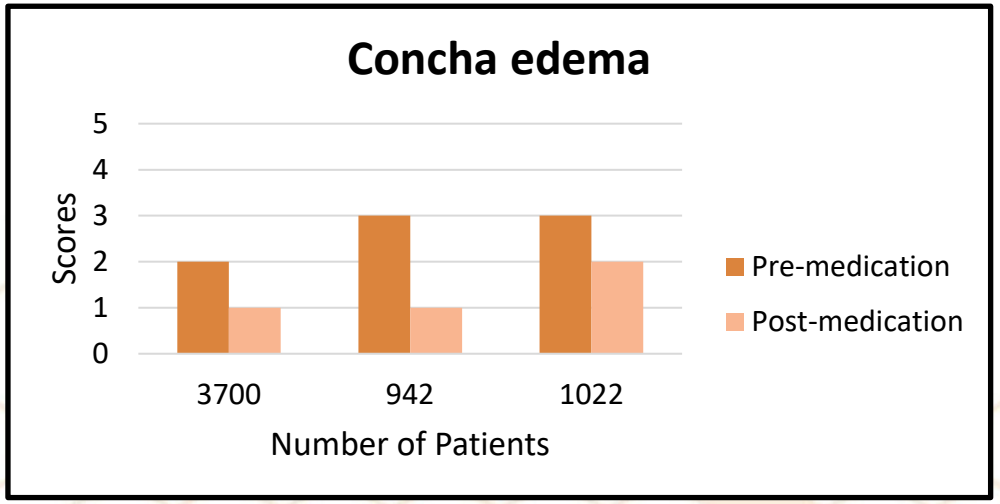


Natural (1), Mild pale (2), Moderate pale (3), Severe pale or purple (4), Extremely pale or purple (5)

"A decrease in concha color scores was observed in 3920 patients. A 20% reduction occurred in 3129 patients, a 40% reduction in 791 patients."



None (1), Mild (2), Moderate (3), Severe (4), Extremely severe (5)

"A decrease in concha edema scores was observed in 5664 patients. A 20% reduction occurred in 4722 patients, a 40% reduction in 942 patients."

RESULTS IN TURKIYE STUDY

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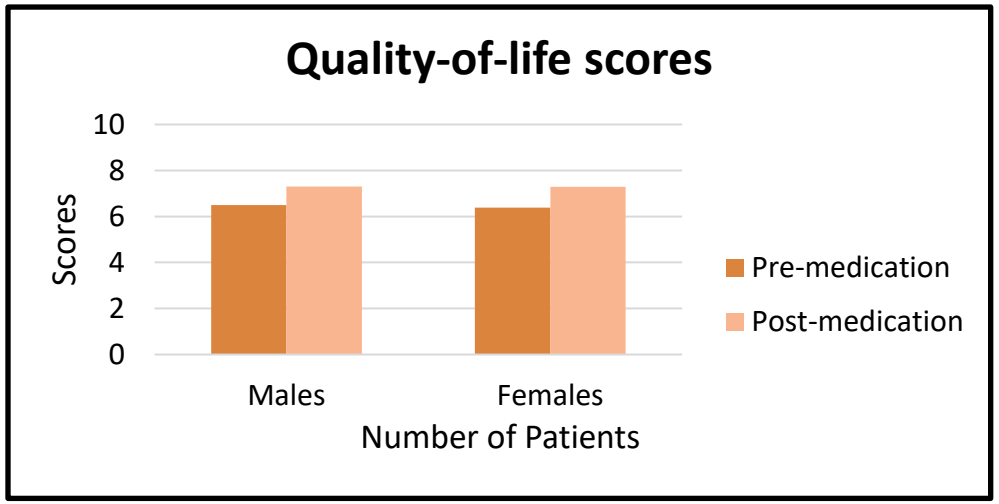
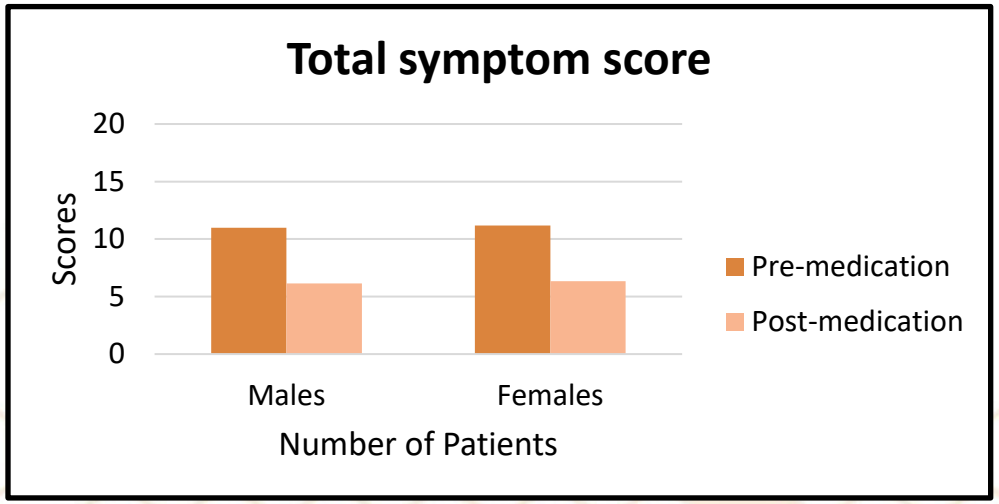


Quality-of-life scores (1-10)

"An improvement in quality-of-life scores was observed in both male and female patients. In males, the mean score increased from 6.5 to 7.3, while in females, it increased from 6.4 to 7.2 following medication."



Total symptom score (1-20)

"A significant reduction in total symptom scores was observed in both male and female patients. In males, the mean score decreased from 11 to 6, while in females, it decreased from 11.5 to 6.5 after medication."

CONCLUSION

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In conclusion, clinical observations from more than 10,000 patients in Türkiye and 440 patients in Europe demonstrated that ***Rhinapi***, a propolis-enriched hypertonic saline nasal spray, significantly alleviates the symptoms of allergic rhinitis and improves quality of life, providing up to 80% symptom reduction in certain patient groups.

+39 CLINICAL PUBLICATIONS

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R&D CENTER

PROPOLIS AS A TREATMENT OPTION FOR HAND, FOOT, AND MOUTH DISEASE (HFMD) IN CHILDREN: A PROSPECTIVE RANDOMIZED CLINİCAL STUDY. Kara, M., Sütçü, M., Kılıç, Ö., Gül, D., Tural Kara, T., Akkoç, G., ... & Kara, A. (2025).. *Children*, *12*(6), 695.
https://www.mdpi.com/2227-9067/12/6/695

ANATOLIAN PROPOLIS EXTRACTS ENHANCE CISPLATİN EFFICACY IN OVARIAN CANCER THROUGH AKT/MTOR PATHWAY MODULATION AND DEMONSTRATE ANTIBACTERIAL AND ANTIBIOFILM ACTIVITIES. Erdoğan, E., Özdem, B., Çimentepe, Ö. Ö., & Tekedereli, İ. (2025). *Medical Oncology*, *42*(8), 1-18.
https://link.springer.com/article/10.1007/s12032-025-02888-x

A PROSPECTIVE, MULTICENTER EUROPEAN STUDY ON THE EFFECTS OF ANATOLIAN PROPOLIS AND HYPERTONIC SALINE COMBINATION NASAL SPRAY ON ALLERGIC RHINITIS SYMPTOMS. Manole, F., Hoermann, K., Passali, D., Rombaux, P., Maria Bellussi, L., Rudenko, M., ... & Cingi, C. (2024). *Ear, Nose & Throat Journal*, *103*(3_suppl), 168S-175S.
https://journals.sagepub.com/doi/full/10.1177/01455613241290502

EFFECTS OF ANATOLIAN PROPOLIS AND HYPERTONIC SALINE COMBINATION NASAL SPRAY ON ALLERGIC RHINITIS SYMPTOMS: A PROSPECTIVE, MULTICENTER STUDY. Cingi C, Bayar Muluk N, Çukurova İ, et al. Ear, Nose & Throat Journal. 2024;0(0). doi:10.1177/01455613231204209.
https://pubmed.ncbi.nlm.nih.gov/38284348/

EFFICACY AND TOXICITY OF ANATOLIAN PROPOLIS ON HEALTHY NASAL EPITHELIAL CELLS Samanci, A. T., Muluk, N. B., Sezer, C. V., Kutlu, H. M., Topsakal, V., & CINGI, C. (2022). European Review for Medical & Pharmacological Sciences, 26.
https://pubmed.ncbi.nlm.nih.gov/36524918/

+39 OUR CLINICAL PUBLICATIONS

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EFFECT OF BEE&YOU 30% PROPOLIS EXTRACT ON COVID-19
https://pubmed.ncbi.nlm.nih.gov/33950349/

EFFECT OF BEE&YOU 30% PROPOLIS EXTRACT ON THE SYMPTOMS OF COVID-19
https://pesquisa.bvsalud.org/global-literature-on-novel-coronavirus-2019-ncov/resource/pt/covidwho-1215808

PROTECTIVE EFFICACY OF BEE&YOU 30% PROPOLIS EXTRACT
https://scienceopen.com/hosted-document?doi=10.14293/S2199-1006.1.SOR-.PPZR10D.v1

BEE&YOU POLLEN AND COVID-19
https://dergipark.org.tr/en/pub/jan/issue/57137/762734

EFFECT OF BEE&YOU 30% PROPOLIS EXTRACT ON TYPE II DIABETES
https://pubmed.ncbi.nlm.nih.gov/32378224/

EFFECT OF BEE&YOU 15% WATER-SOLUBLE PROPOLIS EXTRACT ON WOUND HEALING
https://pubmed.ncbi.nlm.nih.gov/34602433/

EFFECT OF BEE&YOU PROPOLIS EXTRACTS ON HELICOBACTER PYLORI
https://pubmed.ncbi.nlm.nih.gov/27233102/

EFFECT OF BEE&YOU 30% PROPOLIS EXTRACT ON ORAL HEALTH
https://pubmed.ncbi.nlm.nih.gov/34397326/

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THANK YOU!

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