



Eye Allergy

Treatment Breakthrough

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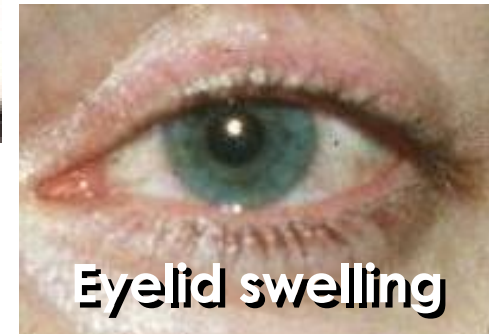
Eye Allergy

What is Eye Allergy?

- Also called allergic eyes or allergic conjunctivitis.
- An allergy disease of which the patient's conjunctiva is triggered by an allergen and produces a chain of allergic reactions as a result.
- Eye allergy is not contagious, yet the patient would feel the symptoms of itching, watering, redness and pain right away or within a short period of time.

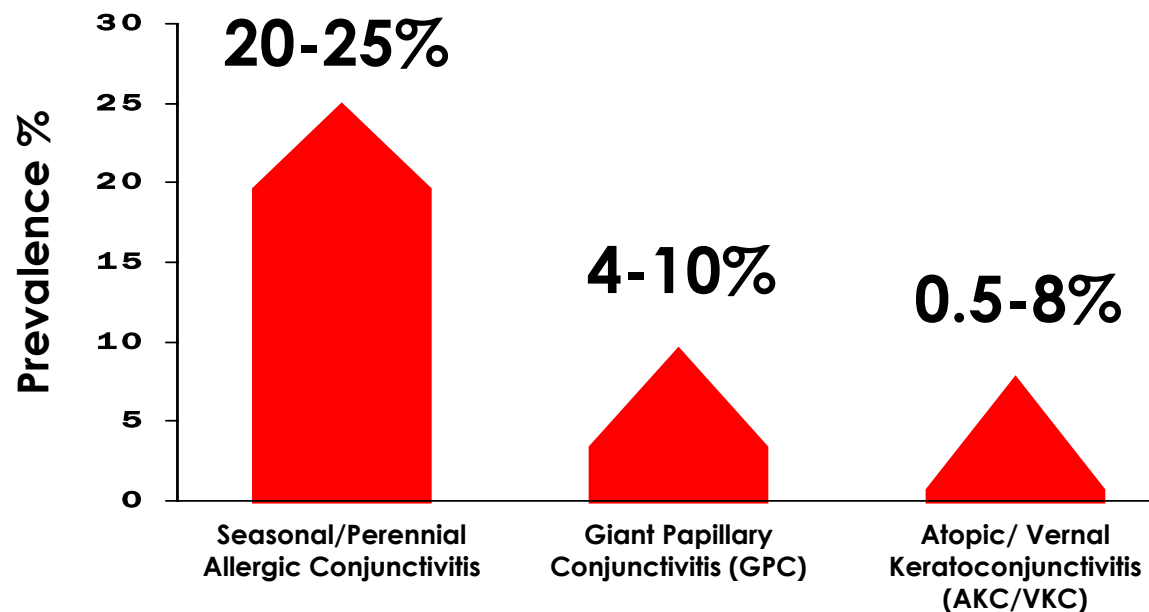


Symptoms



Prevalence

- About 20% - 25% general population have eye allergy ⁽¹⁾ !
- Over seven out of every ten patients with other forms of allergy also have eye allergic symptoms !



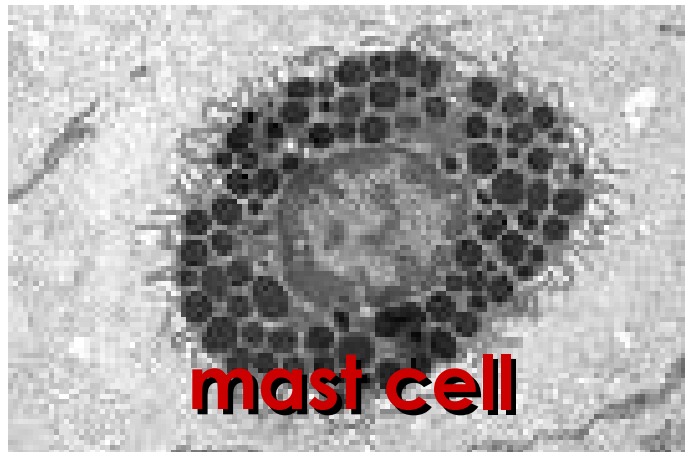
(1) Lasik and Ocular Allergy by Louis Pilla from Ophthalmology Management Issue September 2003

Eye Allergy in Hong Kong

- Eye allergy is on the rise in Hong Kong.
- Patients with early eye allergy symptoms have doubled from 10% to 30% in the past decade !

Causes of Eye Allergy

- An allergy disease of which the eye is triggered by an allergen from the air or the environment.
- The immune system of the patient is being triggered and produces some abnormal reactions, in which the mast cell secretes abundant of histamine that causes itchiness, swell and pain.



Allergens of Eye Allergy

Indoor Allergens

Hair or dandruff of pets



Dust mite on bed sheet

Rug

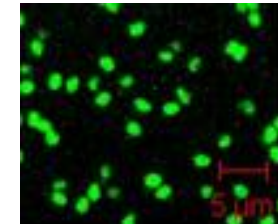


Dust on curtain

Outdoor Allergens



Pollen



Spores of fungi



Pollutants such as dust

Some stimulants such as smoke, perfume or exhaust gas, although not allergens themselves, might aggravate the allergic symptoms.

Victims of Eye Allergy

- Those with rhinitis.
- Those with other forms of allergy disease such as asthma or eczema.
- Those with family history of other allergy diseases.



Types of Eye Allergy

Eye Allergy Subtypes

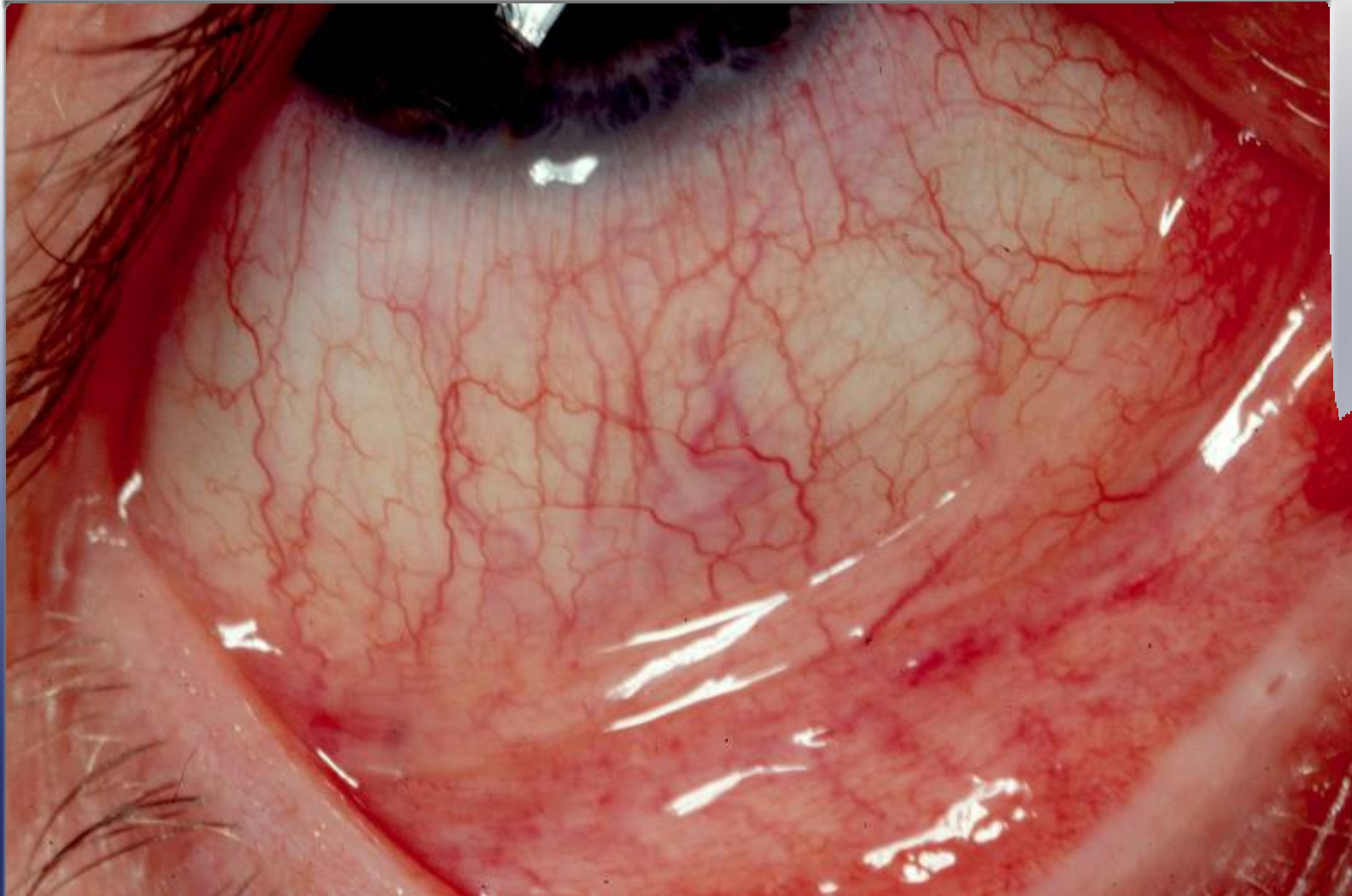
- Seasonal/Perennial eye allergy
- Vernal keratoconjunctivitis (VKC)
- Atopic keratoconjunctivitis (AKC)
- Giant papillary conjunctivitis (GPC)

Perennial Eye Allergy

- Year-round problem & indoors
 - High pollen counts
 - Associated with exposure to animals
- 70% to 80% allergic to dust mite droppings
 - Mites are 10 to 24 μ
 - 10 to 20 waste pellets/day
 - 1 gram dust = 240,000 droppings
- Dust mites are commonly found at
 - Dust
 - Curtain
 - Carpet
 - Fluffy toys
- **According to research finding, these allergens are unavoidable!**



Seasonal / Perennial Eye Allergy



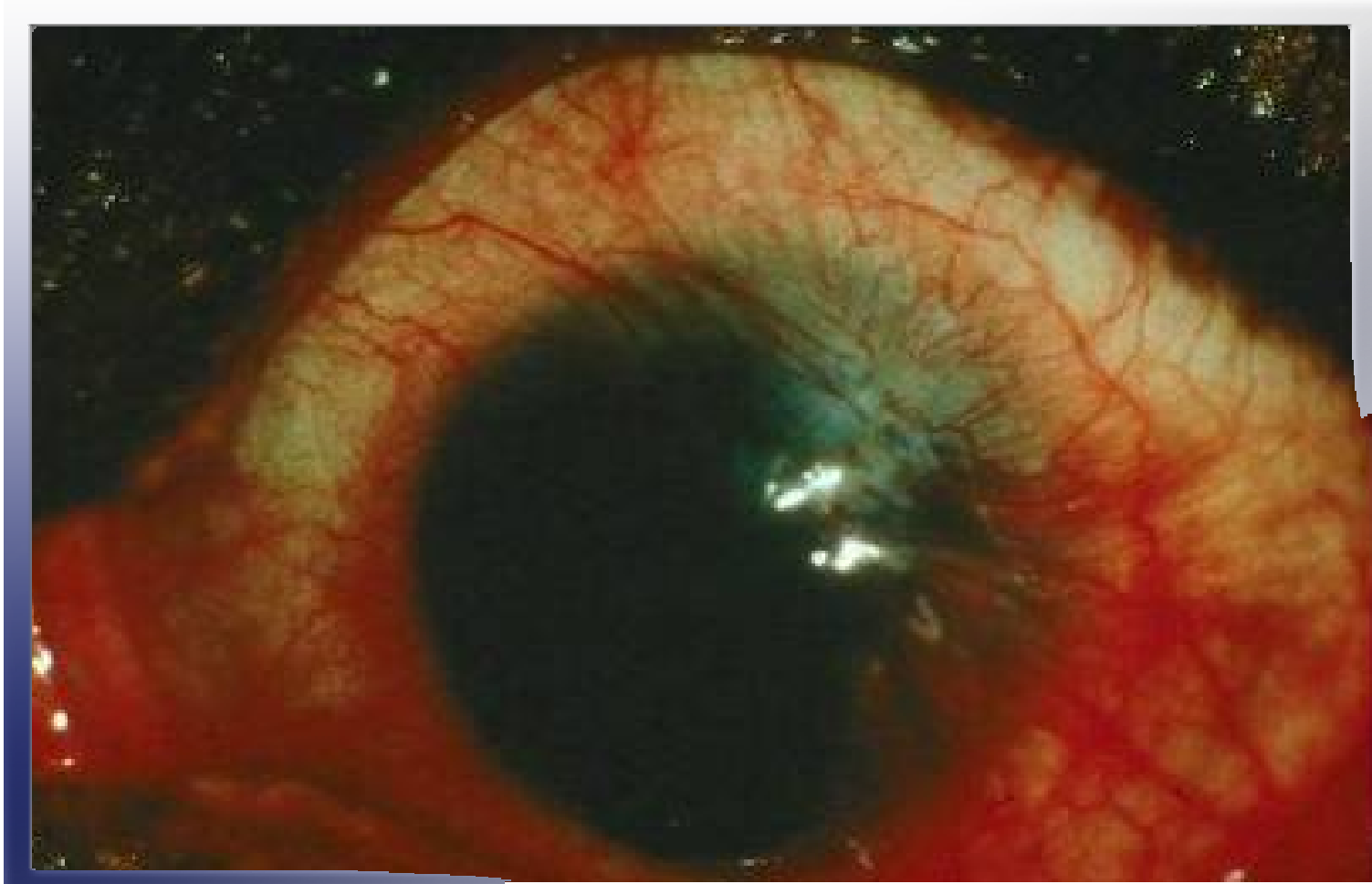
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Vernal Keratoconjunctivitis



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Atopic Keratoconjunctivitis (AKC)



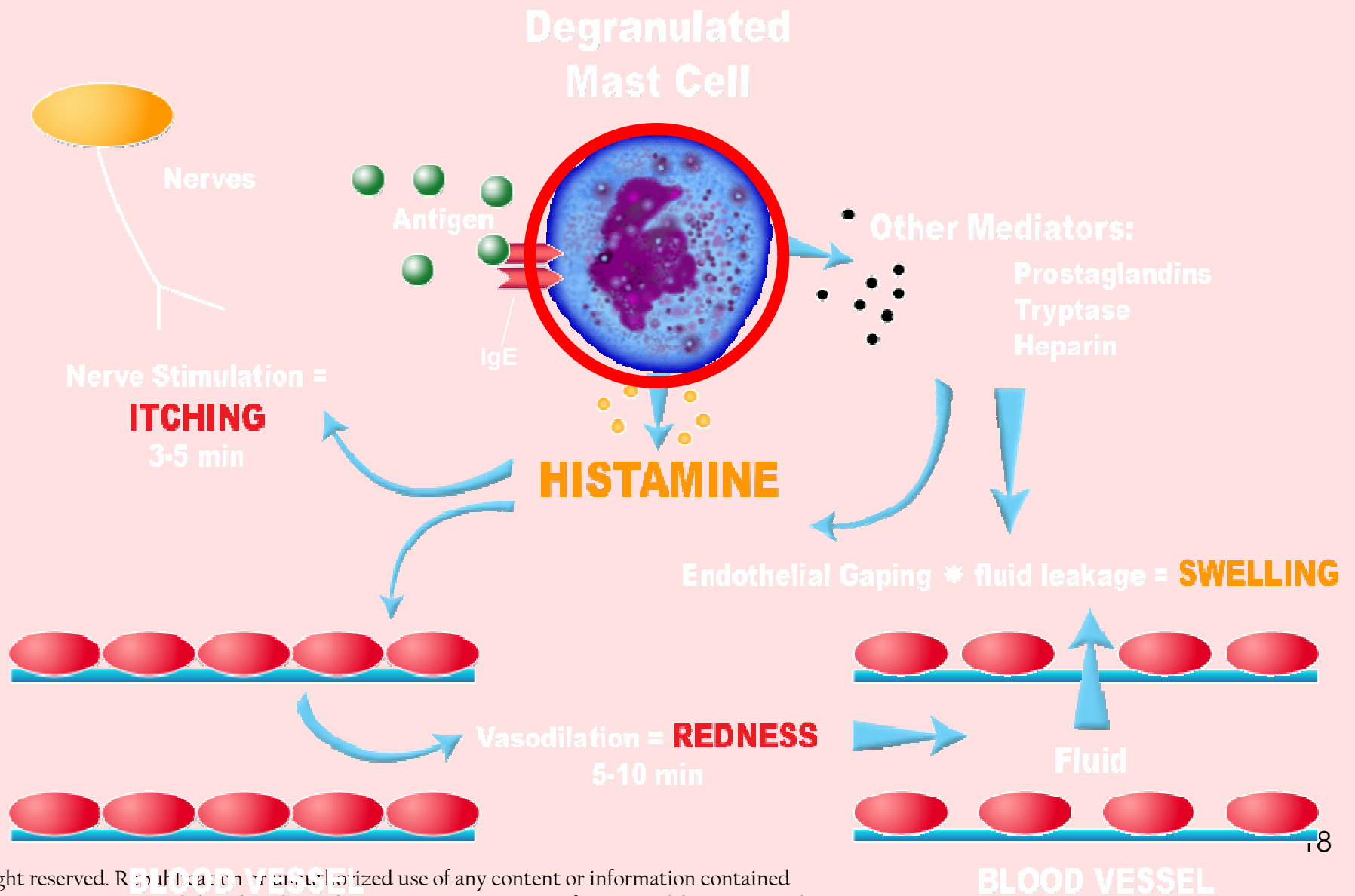
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Giant Papillary Conjunctivitis (GPC)



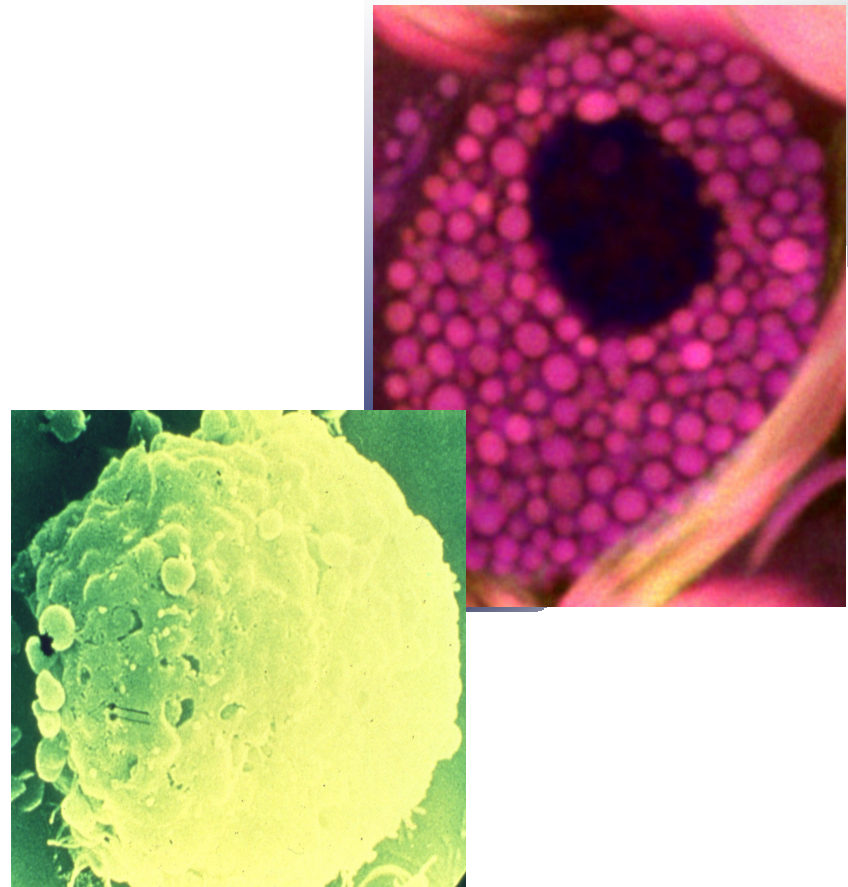
Eye Allergy Treatment

Allergic Cascade



Eye Allergy and the Mast Cell

- Primary cell involved in allergic response of the body
- 50 million mast cells in the human eye



Limitations on Traditional Therapies

Traditional Therapies	Limitations
Decongestant eye drops	<ul style="list-style-type: none">● Can only relieve the symptoms temporarily.● Allergic reactions may rebound or even worsen
Systemic therapies	<ul style="list-style-type: none">● Eye allergy is a common topical allergic disease. Systemic therapies for other allergy diseases may not be applicable to eye allergies.
Steroids	<ul style="list-style-type: none">● May increase IOP & lead to glaucoma● May delay wound healing● Exacerbate secondary infection
Antihistamines	<ul style="list-style-type: none">● Merely provide short-term, symptomatic relief● However, as these therapies do not inhibit the release of preformed mediators from mast cells and thus, cannot prevent eye allergy.

The most effective therapy of eye allergy should be those which target the human conjunctival mast cell, which is the source of the allergic reaction. Ideally, the therapy should be able to inhibit the H1-receptor and stabilize the human conjunctival mast cell concurrently.

New Generation
Antihistamine & Mast Cell
Stabiliser Combinations
Clinical Study

Olopatadine Solution

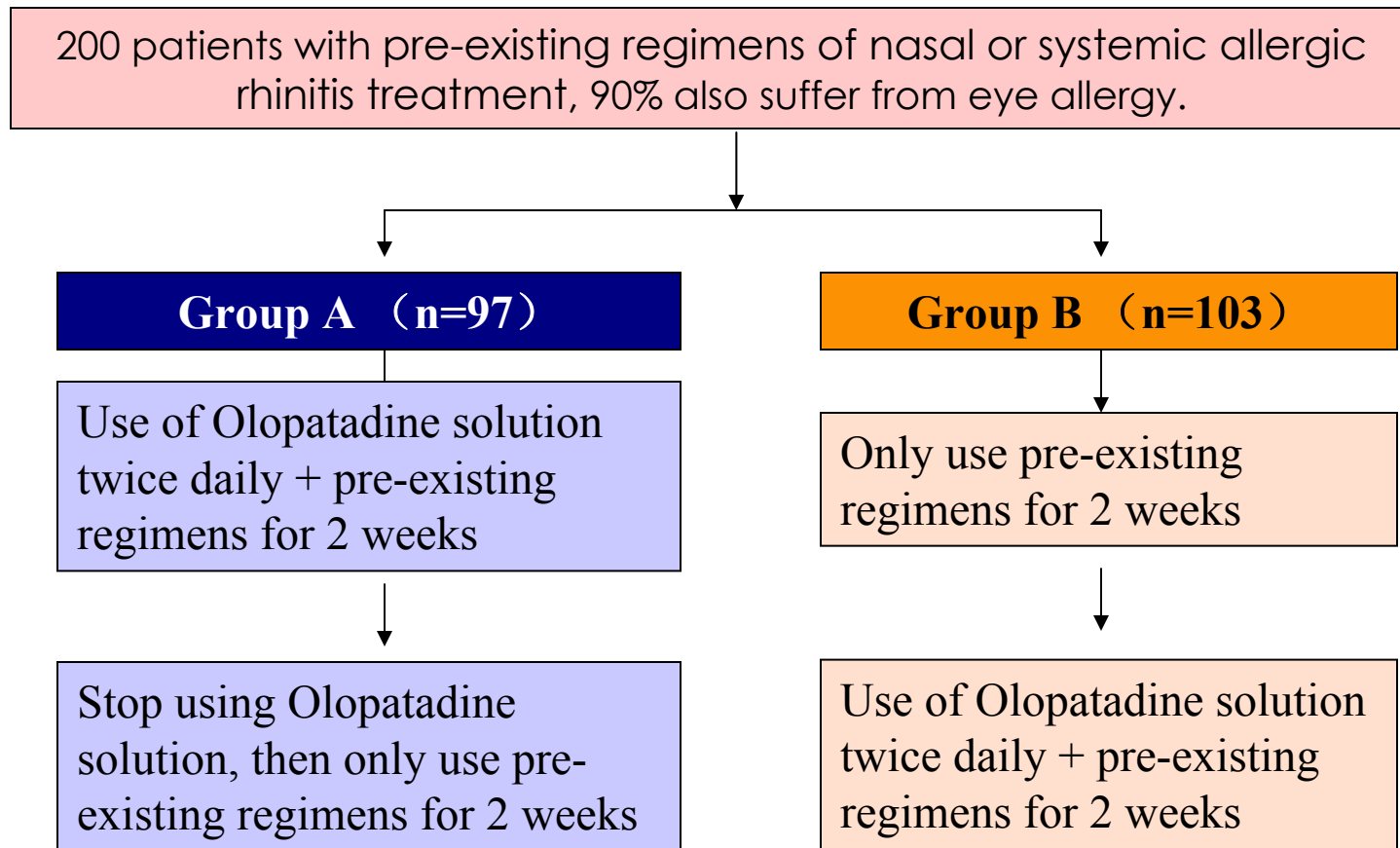
- A multi-action single molecule which reaches the root cause of eye allergy
 - antihistamine and mast cell stabiliser.
- Provides **rapid** and **sustained** relief of eye allergy signs and symptoms.
- Targets at symptoms of allergic conjunctivitis.
- Superior efficacy and comfort when compared to available anti-allergic eye drops.
- Excellent safety record, suitable for children aged 3 or above.
- Obtained FDA approval.

Effects of adjuvant therapy with Olopatadine on Quality of Life in Patients with Allergic Rhinitis Using Systemic or Nasal Therapy

Study Design

Objective	To evaluate the benefit gained in quality of life when anti-allergy eye drop olopatadine was added to patients' pre-existing regimens of nasal or systemic allergic rhinitis treatment.
Sample size	200 patients who experienced rhinitis symptoms, among which 90% are sufferers of eye allergy and on average, suffer from eye allergy for 4 days per week. These patients are treated with prescribed nasal or systemic allergic rhinitis treatment.
Design	<p>4-week, prospective, multi-center, open-label, environmental model, cross-over study.</p> <p>Two questionnaires were used as primary endpoints to evaluate Quality of Life (QOL) at each visit:</p> <ol style="list-style-type: none">1. Rhinoconjunctivitis Quality of Life Questionnaire (RQLQ) (global, activity, sleep, non-nose/ eye symptoms, nasal symptoms, emotional, etc.)2. Allergic Conjunctivitis Quality of Life Questionnaire (ACQLQ) (global, eye symptoms, symptom-related problems, activity limitations, vitality, emotion functions, etc)

Clinical Study on Olopatadine Solution



Berger W, Beck M, Kimura S, Westbrook T, Storms W, Galant S. Ann Allergy Asthma Immunol. 2005;95:361-371
Allergy Asthma Immunol. 2005;95:361-371

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Study Baseline

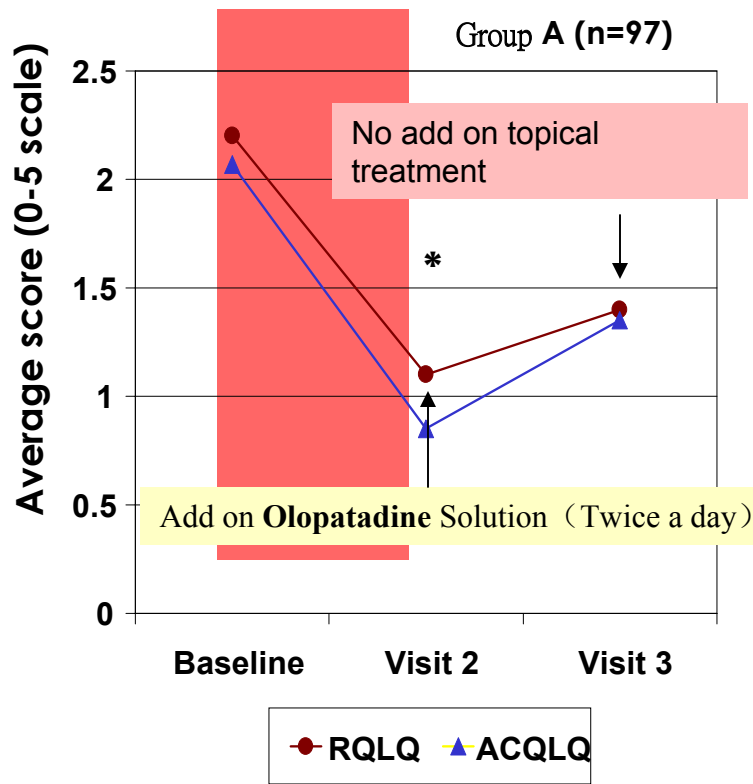
- On average, regardless of pre-existing regimens of nasal or systemic allergic rhinitis treatment, patients in group A and B report symptoms of eye allergy in 3.88 and 3.96 a week respectively.

Study shows:
Olopatadine solution
reduces the no. of days with eye allergy symptoms by 43%

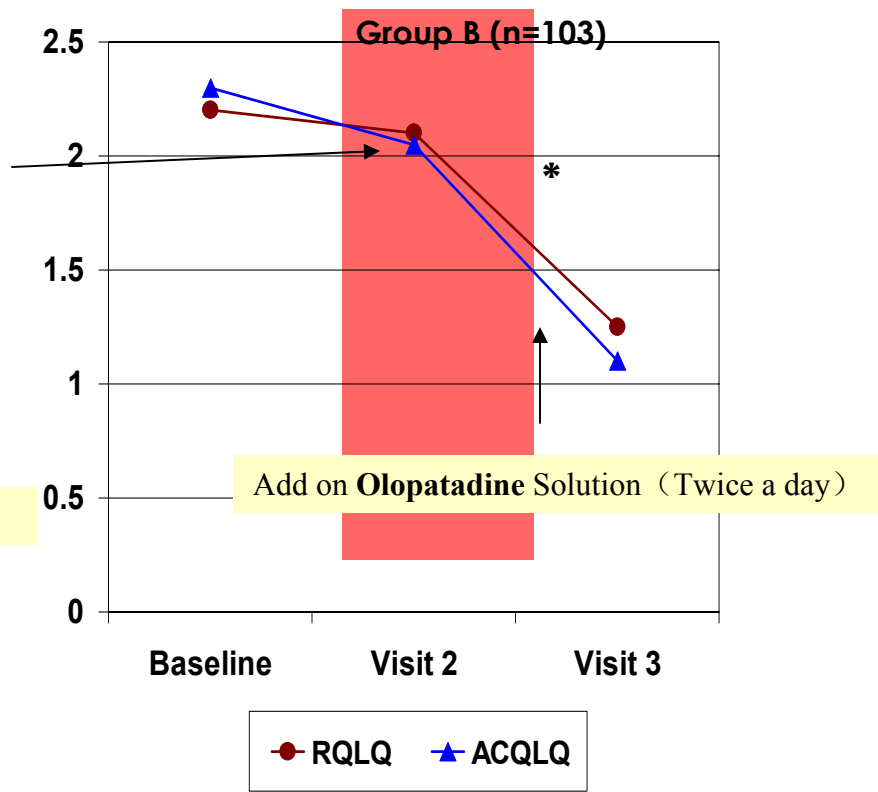
	no. of days with eye allergy symptoms BEFORE using Olopatadine	no. of days with eye allergy symptoms AFTER using Olopatadine	% difference
Group A n=97	3.88 days a week	2.08 days a week	46.3% lower
Group B n=103	3.96 days a week	2.36 days a week	40% lower

Olopatadine Solution :

Significant improvements in QoL of eye allergy and rhinitis patients
Global Score



After using Olopatadine twice a day
for 2 weeks

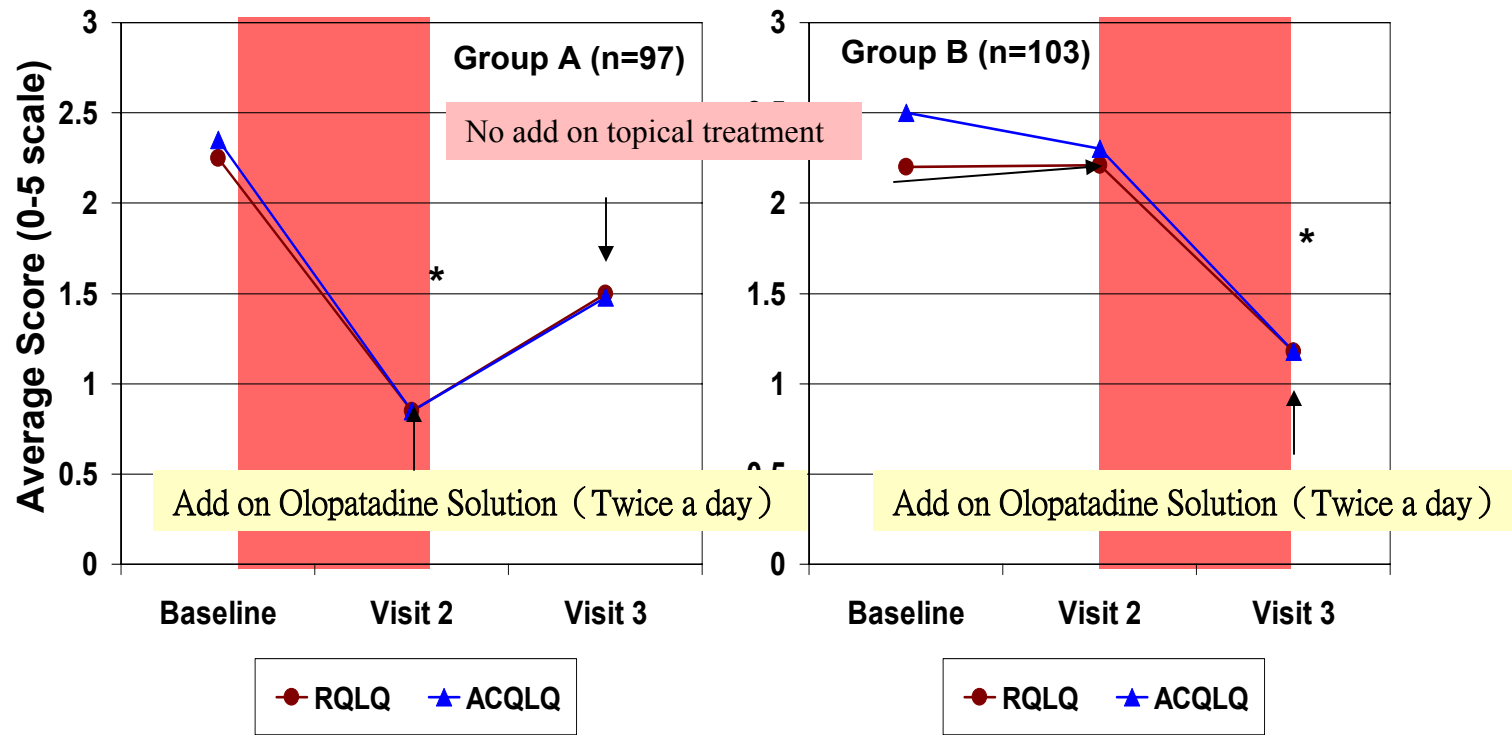


After using Olopatadine twice a day
for 2 weeks

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Olopatadine Solution:

Effectiveness of improving QoL of eye allergy and rhinitis patients
Average eye allergy symptoms scoring



After using Olopatadine twice a day
for 2 weeks

After using Olopatadine twice a day
for 2 weeks

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Olopatadine Solution:

Improvement of global QoL by 56%

Relieve Eye Allergy Symptoms by 59%

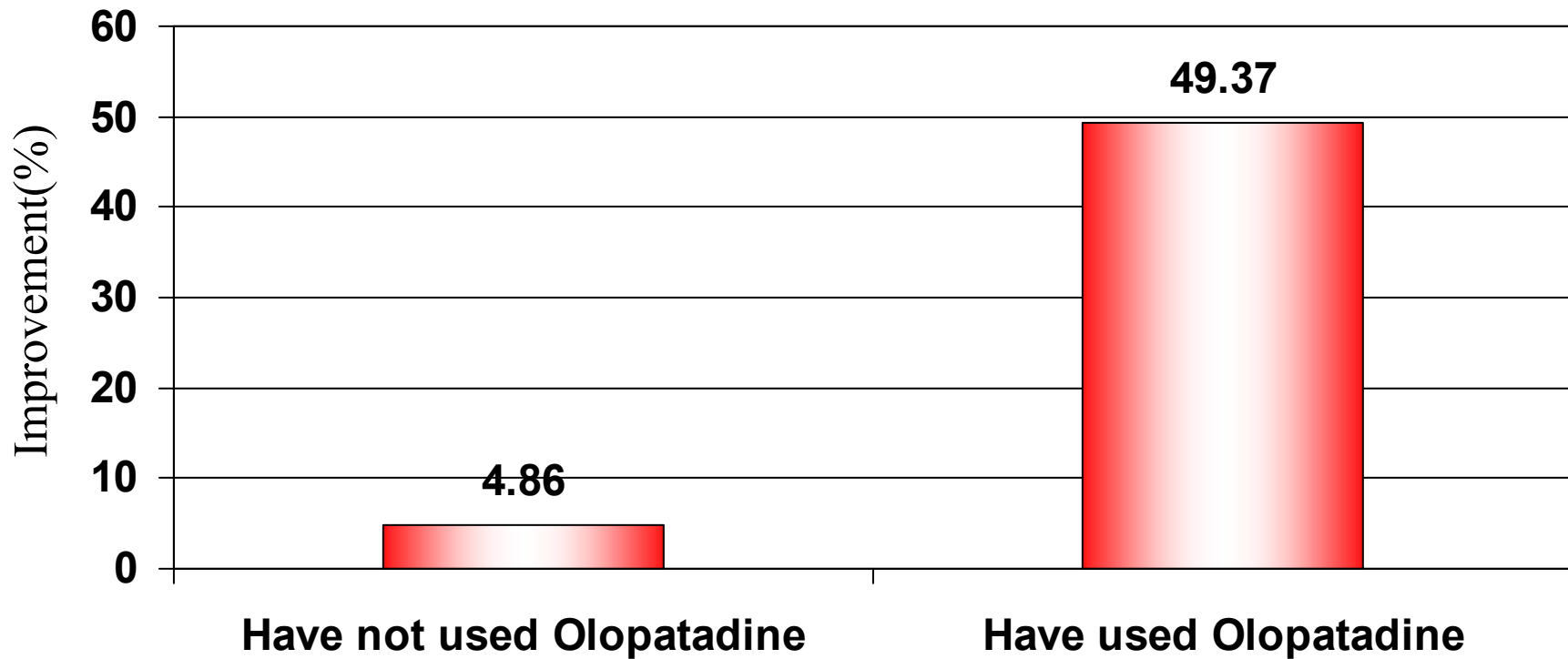
QoL		
Group	Baseline	Eye Allergy QoL Study Result
Group A n=97	Global QoL	Improve by 58.8%
	Eye Allergy Symptoms*	Improve by 61.2%
Group B n=103	Global QoL	Improve by 53.3%
	Eye Allergy Symptoms*	Improve by 56%

*Eye Allergy Symptoms: Itching,, Redness, Tearing, Eyelid swelling, Chemosis

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Using **Olopatadine** Improve Eye and Rhinitis QoL by 49%



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Olopatadine QoL improvement

Conclusion

The use of pre-existing regimens of nasal or systemic allergic rhinitis treatment is ineffective in improving the patients' QoL, as they still report symptoms in 4 days per week on average.

Study shows that Olopatadine solution provides clinically significant QoL improvements:

- Patients experienced 43% fewer days with eye allergy symptoms
- Average improvement of eye allergy QoL by 56% and relief of symptoms of eye allergy by 59% in just 2 weeks
- Overall improvement in QoL of eye allergy and rhinitis patients by 49%

Olopatadine Solution

Safety Profile

Excellent Safety Record

- Safe and approved for use in patients 3 years of age and older
- Overall low incidence of drug-related adverse events
- Excellent comfort: low incidence of burning and stinging
- No clinically significant difference in visual acuity, ocular signs, pupil diameter, appearance of fundus or intraocular pressure

Seasonal Eye Allergy

Conclusion

- A topical disease requires a high-targeted topical treatment:
 - Eye allergy is a common eye disease yet easily ignored by patients.
 - Symptom relieving eye drops or antihistamines may provides temporary symptomatic relief but cannot tackle the root cause.
 - Systemic anti-allergic drugs may not be effective.
 - Steroids may increase the IOP and may increase the chance of developing glaucoma.
- Olopatadine Solution provides targeted and efficacious therapy for eye allergy.
- Olopatadine Solution is a promising new treatment offering a dual action –as an antihistamines & stabilizer of the mast cell , that helps to prevent & treat eye allergy, with superior efficacy and comfort when compared to other anti-allergic eye drops. It targets the root cause of allergic reactions, and helps to improve the patient’s quality of life.
- Olopatadine Solution is a FDA approved therapy indicated for treating eye allergy symptoms.



6 TIPS For Fighting against The Top Allergens



Tips 1. Regular cleaning of bedsheet



- Wash bedsheet with 60°C hot water every week
- Choose anti-mite bed sheet
- Be gentle in unfolding bed sheet to avoid stirring up dust in the air. Do not go to bed right after spreading of bed sheet.



Tips 2. Regular cleaning of ventilation system



- Wash air conditioner at least once a year
- Wash filter a few times a month during the summer
- Maintain room humidity at 40-50%



Tips 3. Avoid the use of chemical



- Minimize the use of chemical cleaning agents
- Use less cosmetics



Tips 4. Vacuum cleaning



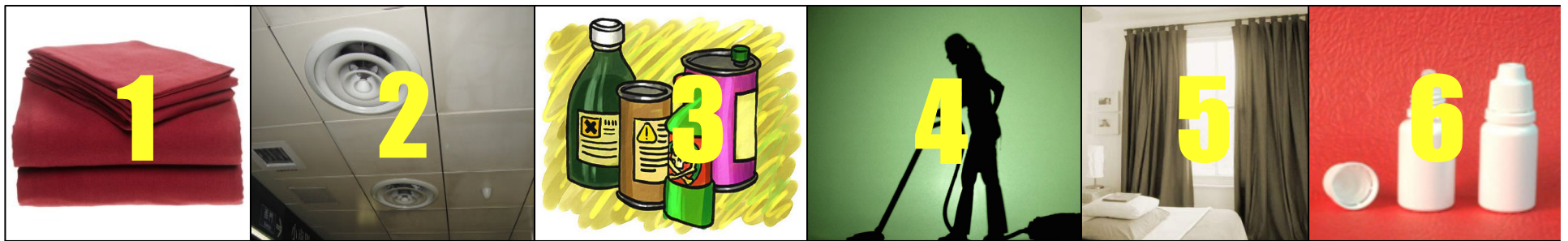
- Clean with wet cloth to minimize dusting in the air
- Use air purifier
- Regular cleaning of carpet



Tips 5. Regular cleaning of curtains



- Use hot water (60 °C +) for washing curtains



Tips 6. Appropriate medical treatment

There are allergens everywhere & literally unavoidable.

For fast & constant relieve of eye allergic symptoms, a treatment that provides targeted and efficacious therapy is crucial. It targets the root cause of allergic reactions, which helps to improve the patient's QoL.