



Allergy & Asthma

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*Addressing :
Frustrations
in
Allergic Rhinitis
treatment*

*“Those who cannot change
their minds
cannot change anything.”*

— George Bernard Shaw

*Living with Allergic Rhinitis
and Allergic Conjunctivitis
is a daily
Challenge in
Change management!*

Allergic Diseases

- *Systemic disorders*
- *Caused by impaired immune systems*
- *AR, Allergic Asthma, AD, Food Allergy*
- *Complex interactions between genetics and environment*
- *Listed by the WHO as one of the Top 3 disorders to be prevented and controlled in the 21st century*

— *Nature 2023; J Wang et al*

To Quote Glenis Scadding:

AR diagnosis is often missed, treatment is inadequate and opportunities to alter the course of allergic disease by allergen specific immunotherapy (AIT) are being wasted.

EUFOREA KIDS

Definition of Allergic Rhinitis

- *Allergic rhinitis manifests as inflammation of the lining of the nose*
 - *is accompanied by nasal symptoms, including rhinorrhea, sneezing, nasal congestion, and/or itching*
 - *often associated with ocular symptoms*

Buzz Words in Literature

- *Quality of Life*
 - *Real World data (Patients/Care givers)*
- *Shared Decision making*
- *Evaluating symptom control and adapting treatment regimes*
- *Change management*
- *Trained Immunity*
- *Precision medicine*

Frustrations

- *For the Patient*
- *For the Doctor*
- *All about expectations*
- *Treatment options seems Limited.*



Newly Diagnosed - AR

- *History – Current symptoms*
 - *Nasal symptoms*
 - *Lungs and skin*
 - *Quality of Life*
- *Age of the patient*
- *Family history*
- *Environmental history*
 - *Current*
 - *Past exposure history*

Classification of allergic rhinitis

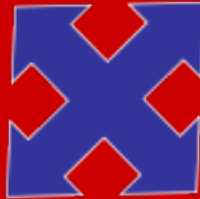
The WHO ARIA workshop suggested a new classification of AR based on **FREQUENCY** and **SYMPTOM SEVERITY** as these are the major factors Involved in determining treatment 2

Intermittent symptoms

- <4 days per week
- Or <4 weeks

Mild

- Normal sleep
- Normal daily activities, sport, leisure
- Normal work and school
- No troublesome symptoms



Persistent symptoms

- >4 days per week
- And >4 weeks

Moderate/Severe

One or more items

- Abnormal sleep
- Impairment of daily activities, sport, leisure
- Problems caused at work or school
- Troublesome symptoms

Diagnosis made

- *According to Severity*
- *According to ARIA Guidelines*
 - *Intermittent/ Persistent*
 - *Mild/ Moderate to Severe*

Known AR Patient

- *Evaluation of Control*
- *How do we assess control?*
 - *Expectations/ Interpretation*
 - *No Finger prick or Blood test level*
 - *No Spirometry like for Asthma*
 - *Symptoms - Subjective*
- *ARCT*
- *VAS*

Patient's Expectations

- *I / my child will outgrow this*
- *One or two courses of treatment maximum – then cured*
- *I am compliant with my medication as prescribed – why am I not better?*
- *Tell me what I am allergic to in my diet*

Patient specific

GP know this patient

But

We forget

The Patients Forgets

AR- Control Tests

- *Keep the original score at diagnosis*
- *Re-Evaluate at next visit*
- *Re-evaluate at exacerbation*
 - *Symptom score*
 - *Quality of life score*
 - *Co-morbidities*
 - *Possible triggers*

Symptom Severity/ Disease Control

- *How to assess severity?*
 - *EUFORIA re-evaluate regularly*
- *Do we ask the questions?*
- *Visual analogue scale*
- *Quality of live*
- *What is normal for an Atopic family ?*



What is Changing?

- *Stimuli for Exacerbation*
 - *Exposure to animals*
 - *Location of the hamster cage*
 - *Sibling now horse riding*
 - *New house with carpets maybe or mouldy*
 - *Revamping the house – painting*
 - *Visiting friends with pot-puri in the lounge*
 - *Viral infections*
 - *Pollen of grass and trees.....*

What is Changing?

- *Immediate Environment changes*
 - *As explained - BUT*
 - *Relocated to new area in the country*
 - *Total different vegetation*
 - *Weather changes with season changing*
 - *Weather changing can be within 24h period*
 - *Viral infections in Winter*
- *Global Environment changes*

- *The Plot Thickens*



*Inflammation or
Infection?*

*Rhinovirus has been found to be
the cause of 50% of the common
cold episodes*

AR and ARS Link

- *AR – inflammation of the mucosa leading to impaired barriers function*
- *Th2 – polarized cytokines can upregulate ICAM-1 which is the receptor of 90% of Rhinoviruses*
- *There is a link between AR and CRS*

Review: E De Corso et al. Current Allergy and Asthma Reports 2020

Complications in AR

- *Progression:*
 - *Asthma*
 - *Multiple sensitisations*
- *Recurrent episodes of sinusitis with antibiotic overuse*
- *Nasal polyposis*
- *Nasal bleeds*
- *Abnormal facial development with dental malformation*
- *Migraine/ ADHD/Chronic Fatigue*

Cohort from Sweden

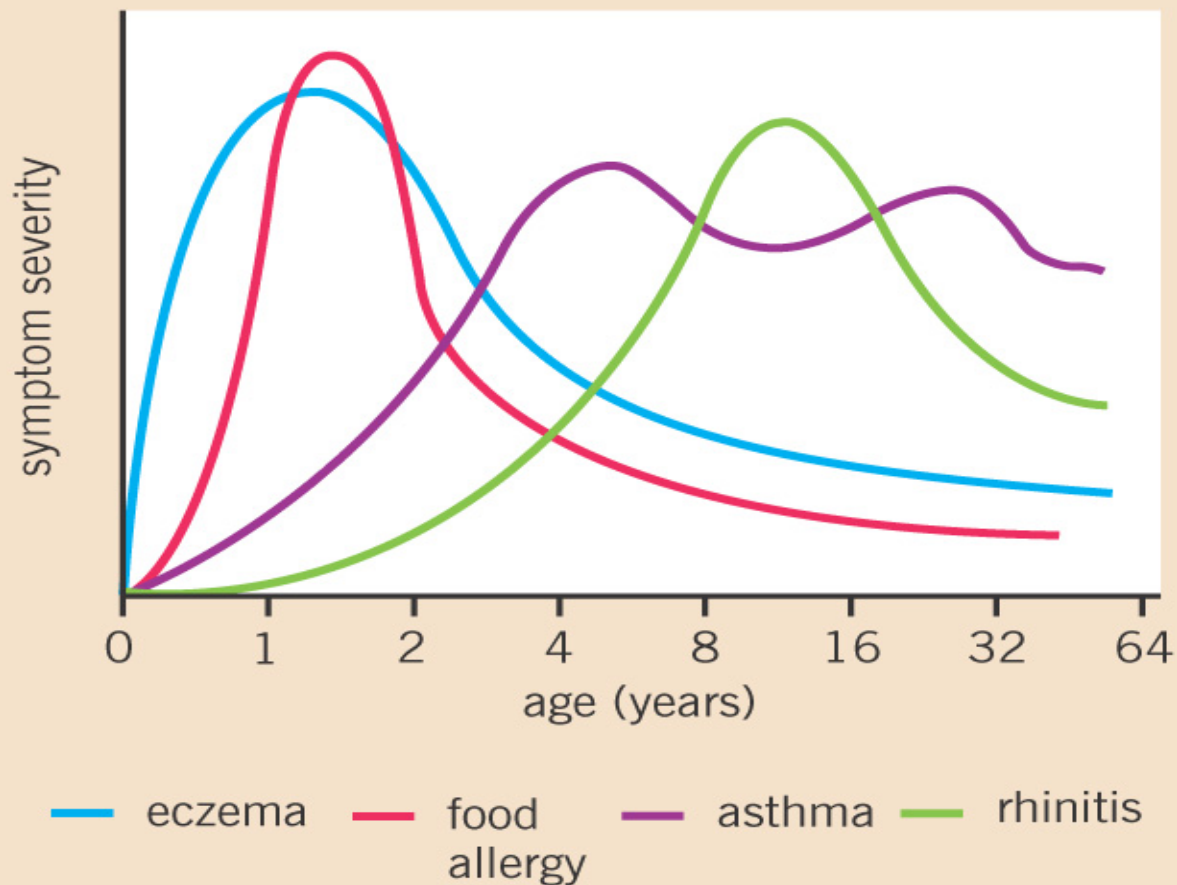
- *225 Individuals +/- Asthma or AR*
- *132 Healthy*
 - *116 still after 10 years*
 - *16 developed AR*
 - *4 AR plus Astma*
- *82 with AR*
 - *26 Remission*
 - *53 Unchanged*
 - *3 Developed Asthma*
- *41 AR + Asthma*
 - *None in remission*

Cohort from Sweden

- *Persistent AR more likely to be sensitised to allergens*
- *Those with persistent AR more likely to be grass pollen allergic than those that went into remission*

— *Clin Transl Allergy 2023*

Symptom Severity Versus Age



Allergic Sensitisation - By Age

- *Northern Sweden*
- *Longitudinal Population based*
- *Three Groups*
 - *7-8 20,6%*
 - *11-12 30,6%*
 - *19 42,1%*
- *Remission of sensitization was uncommon.*
 - » *2016*

Cohort from France

- *The results of this study support the existence of AR flare-ups in patients with HDM-AR. The phenotype “frequent exacerbator” defined as having 2 or more AR annual flare-ups was associated with polysensitization, AR severity and intermittence and severe nasal obstruction.*

Allergy Testing

- *Precision Medicine*
- *Assist in Identifying the high risk patients*
- *Assist in treatment planning*
 - *Avoid unnecessary avoidance of allergens*
 - *Plan necessary avoidance strategies*
 - *Treatment planning according to pollen counts*
 - *Allergen Immunotherapy*

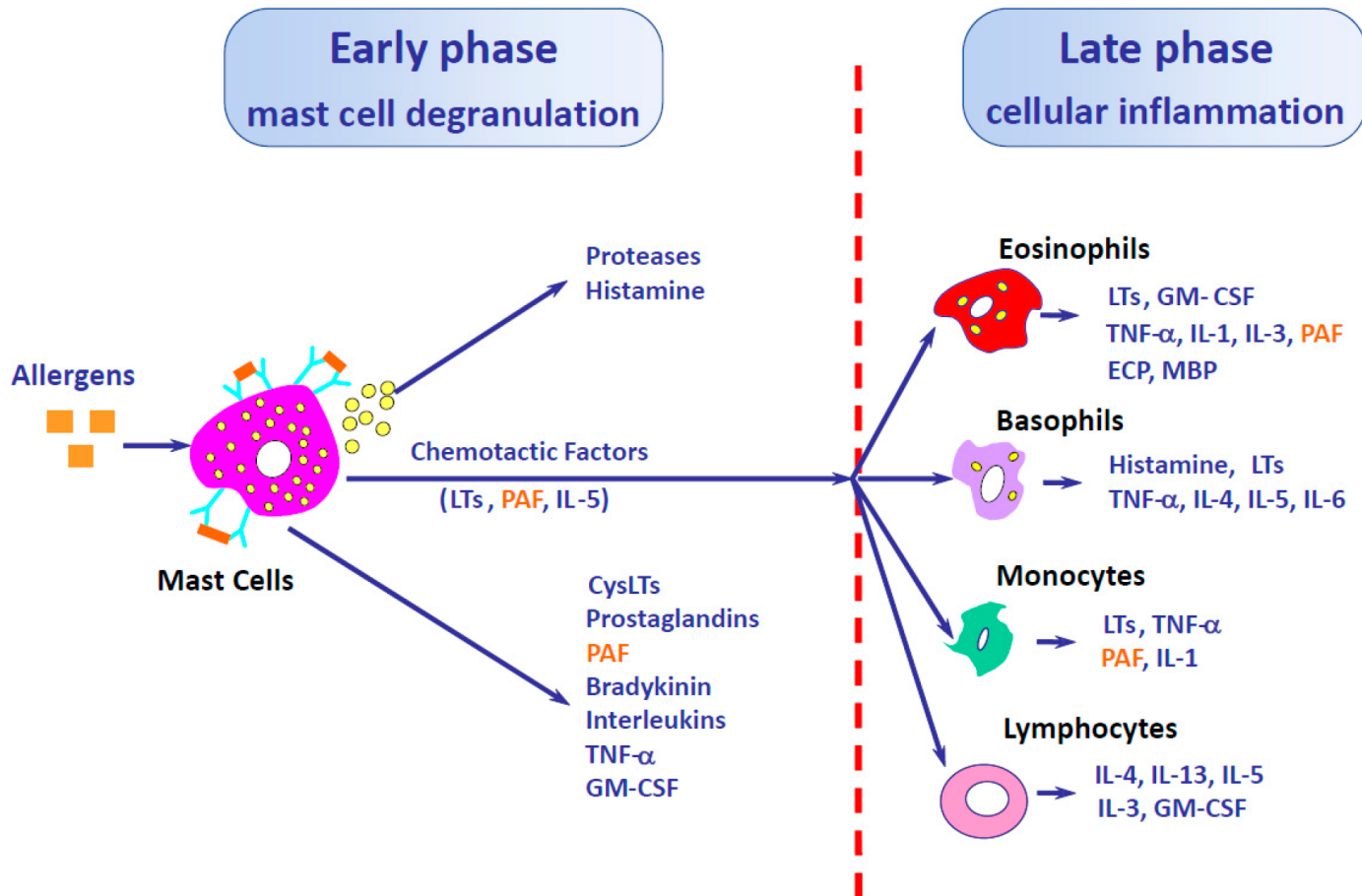
Allergic Conjunctivitis

- *Affects up to 30-40% of patients*
- *Often as part of Allergic Rhinitis*
- *Present in 60% of kids with AR*
- *Can occur without nasal symptoms*
- *Multiple sensitised patients*

- *Treatment*



*With what and for
How long?*



Allergic Inflammation

- *Epithelium cells*
 - *Innate Immunity*
 - *Integrity of essence*
- *Mast cells*
 - *Part of first line defence*
- *Mediators/cytokines*
 - *Histamines*
 - *Others*

ARIA Guidelines

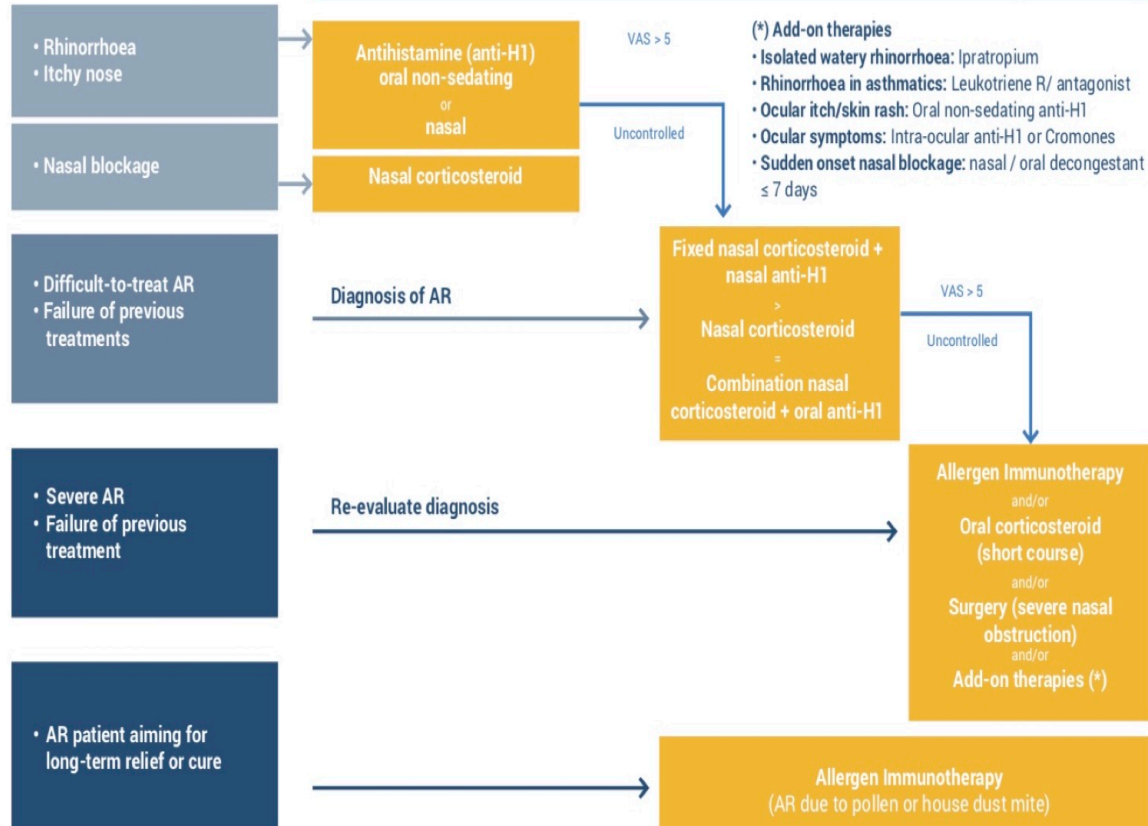
SAARWG

- *Allergen avoidance*
- *Pharmacotherapy*
 - ***Topical nasal STEROIDS***
 - *Antihistamines*
 - *Leukotriene inhibitors*
 - *Other*
- *Immunotherapy*

Allergic rhinitis presentation

Hellings P. et al., Rhinology 2020

Scadding G et al., WAO J, 2020



Moderate/Severe AR

- *Patients with AR and Asthma:*
 - *needs more medication*
 - *More treatment failures*
- *Multiple sensitised – more severe symptoms*

MASK Study

- *Adherence to treatment in Allergic disease are poor*
- *Self management strategies should be expanded*
- *Change management is essential in allergic diseases*
- *Education strategies should be patient-centred*

Intra-nasal Route

- *More effective*
- *Lower dose needed*
- *Quick onset of action*
- *Needs motivation and education*

Treats and Protects

- *Quick onset of action*
» *Andrews et al ;2020*
- *Improves ocular symptoms*
» *Gross et al;2019*
- *Improve quality of life long-term*
» *Seagal et al;2019*

Other Treatments

- *Intranasal Saline / Sea water sprays*
 - *Safe and convenient*
- *Nasal washes*
 - *Safe and very effective*
- *Intranasal decongestants*
 - *SHORT Term*
 - *Be careful in choosing when to prescribe!*
 - *Like with Benzo's*

Sea Water/Saline

- *First principle:*
 - *the physical (mechanical) effect of cleansing the nasal mucosa of the accumulated secretion and pathogen*
- *Second principle*
 - *Depends on the effects of the ions on the physiology of the mucosal cells*

Keep Frustrations Low!

- *Keep a ARCT on record*
- *Give a Treatment Plan - written*
- *No First generation antihistamines*
- *Target Inflammation*
- *Re-Evaluate regularly*
- *Treat the eye symptoms with the nose*
- *Treat and try to prevent complications!*



Thank you