CONSENSUS DOCUMENT

Allergic rhinitis in South Africa — diagnosis and management

South African Allergic Rhinitis Working Group

Patients with allergic rhinitis present with nasal symptoms of itch, sneezing, rhinorrhoea and congestion. Symptoms are precipitated through contact with seasonal allergens, e.g. wind-borne pollens (grass, trees) or perennial allergens, e.g. animal danders (cats, dogs), feathers, house-dust mites, cockroaches. In the grasslands of South Africa the warm climate creates a pollen season of 10 months, producing 'seasonal' symptoms almost throughout the year.

Differential diagnosis. Distinguish allergic rhinitis from non-allergic causes of rhinitis, which present with *rhinorrhoea* and *congestion* usually without *itch* and *sneezing* or produce atypical symptoms, i.e. unilateral obstruction, pain, epistaxis, etc.

Clinical evaluation. History — (*i*) *itch*, *sneezing* and *rhinorrhoea* are usually early symptoms; *congestion* presents later; (*ii*) *itch* affects soft palate and external auditory canal; (*iii*) *sneezing* often occurs at certain times of the day, i.e. early mornings and evenings; (*iv*) *congestion* leads to sinus congestion, mouth breathing and disturbed sleep patterns; (*v*) conjunctivitis can accompany nasal symptoms.

Examination. (*i*) *Allergic facies* — pallor, allergic shiners, Dennie's lines, allergic gape; (*ii*) *allergic mannerisms* — allergic salute; (*iii*) nose — swollen and mucoid; (*iv*) throat — inflamed with lymphoid follicles (cobblestones or granular pharyngitis); (*v*) ears — otitis media with effusion, especially in children.

Investigations. (*i*) Skin-prick test — most sensitive allergy test; (*ii*) total serum IgE — poor sensitivity and specificity; (*iii*) allergen-specific IgE (CAP RAST or Phadiatop) — more accurate than IgE; (*iv*) X-rays — used primarily for detection of complications; (*v*) endoscopy.

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Treatment.

1. Allergen avoidance.
2. Pharmacotherapy: (*i*) topical steroids — effective against all symptoms with chronic use, drugs of choice; (*ii*) antihistamines (oral or topical) — effective against symptoms of itch, sneezing, and rhinorrhoea, but not congestion; (*iii*) topical decongestants — use restricted to short-term symptomatic relief of congestion, and reduction of swelling to facilitate introduction of topical anti-allergy treatment; (*iv*) sodium cromoglycate — limited efficacy and requires multiple applications each day; (*v*) anticholinergics — reduce *rhinorrhoea* only.
3. Specific immunotherapy.

Complications. (*i*) Otitis media with effusion — secondary to eustachian tube obstruction, common in children; (*ii*) infective sinusitis — frequent complication produced by obstruction of sinus drainage; (*iii*) long-face syndrome — secondary to chronic mouth-breathing and facial malgrowth; (*iv*) impaired sleep, somnolence and learning disorders.

Special considerations.

1. Children: (*i*) condition common; (*ii*) complications frequent, because patient often presents late when obstruction is already present; (*iii*) treatment principles same as for adults, although steroid doses must be carefully monitored.
2. Elderly: (*i*) condition not common in individuals aged over 65 years; (*ii*) non-allergic rhinitis more common — 'old man's drip'; (*iii*) elderly are specifically at risk of complications of drugs — first-generation antihistamines (bladder retention and problems of visual accommodation), some second-generation antihistamines may be associated with QT prolongation and arrhythmias, oral vasoconstrictors can give rise to CVS and CNS side-effects.
3. Pregnancy: (*i*) non-allergic rhinitis often associated with pregnancy; (*ii*) *in vitro* tests preferred to skin test because of risk to fetus of allergic reaction; (*iii*) all medication to be used with care.
4. Occupational allergic rhinitis: (*i*) occurs as a result of exposure to allergen or hapten at work; (*ii*) prevalence may be underestimated because of fear that reporting symptoms may jeopardise job, the condition is not compensable, or the condition is common and therefore may not be associated with work.

Recommended approach to the treatment of allergic rhinitis.

1. Diagnosis: (*i*) history; (*ii*) examination; (*iii*) skin-prick tests/CAP RAST; (*iv*) classification into seasonal, perennial or occupational.
2. Chronic symptoms: (*i*) allergen avoidance; (*ii*) intranasal topical anti-inflammatory agents — **topical steroids for moderate to severe disease, sodium cromoglycate for mild disease; (*iii*) second generation (newer) or topical antihistamines — where *itch* and *rhinorrhoea* and NOT *congestion* are prominent**