Acne

Introduction to acne

Acne is a chronic inflammatory disease of the pilosebaceous unit, with a genetic basis. It is common in adolescents and young adults, and is more severe in males. Onset peaks early in puberty, and usually resolves in males during their early twenties. Females are more likely to suffer ongoing acne which can persist into their thirties and forties.

Acne only occurs in the presence of androgens. It is usually caused by increased sensitivity of the pilosebaceous unit to circulating androgens—rarely is it due to increased androgen concentrations. Skin changes in acne are:

• increased sebum production induced by the action of androgens on the pilosebaceous unit

• hypercornification of the pilosebaceous duct, with formation of keratin plugs

• overgrowth of *Propionibacterium acnes*

• inflammation.

Acne mainly affects the face, neck, chest, shoulders and upper back (ie areas with the highest density of sebaceous glands). Comedones (blocked pores; open [blackheads] or closed [whiteheads]) as well as pustules and papules are needed for a diagnosis of acne. If the patient does not have comedones and only has pustules, acne is unlikely—take a sample for cultures and reconsider the diagnosis.

Acne can be confused with other skin conditions, most commonly folliculitis caused by bacteria or pityrosporum. Keratosis pilaris affecting the cheeks can be misdiagnosed as acne in infants and children. Milia, miliaria and neonatal cephalic pustulosis are commonly misdiagnosed as infantile acne.

Acne is a chronic condition and the practitioner needs to manage the patient’s expectations of cure. Acne can have a profound negative emotional and social effect.

Classification of acne

The severity of acne can be classified on the basis of morphology, extent, and measures of quality of life.

Patients with acne that is:

• mild have a few comedones and papulopustules, but no scarring—lesions are often confined to the forehead, nose and chin (the ‘T-section’ of the face)

• moderate have numerous papulopustules and comedones, with some nodules but no scarring—lesions affect extensive areas of the face and sometimes the trunk

• severe have nodules, cysts and scarring—lesions may be confined to the face, but commonly also affect the trunk.

Acne lesions are classified as noninflammatory (open and closed comedones), inflammatory (pustules, red papules, nodules and cysts) or resolving (macules or scars).

Initial assessment and general measures for adolescent and adult acne

Initial assessment of a patient with acne includes considering whether the acne is:

• classified as mild, moderate or severe

• aggravated by systemic drugs or topical products (eg cosmetics, sunscreens)

• related to hormone changes (in women)

• affecting their emotional and social life

• related to occupation or leisure activities.