

# Continuing Medical Education

Demodex mites are commensals of the pilosebaceous unit, and are occasionally implied in facial dermatoses.

*Choose the one best answer:*

1. The diagnosis of demodicidosis is made clinically and best supplemented by
  - A. catching the female mite with a needle
  - B. culture on armadillo or in foot pad of mice.
  - C. scraping & KOH; cynaloacrylate skin surface biopsy
  - D. 20 MHz ultrasound imaging
2. The findings may be considered pathogenic if
  - A. 5< mites per low power field or cm<sup>2</sup>
  - B. you easily catch a mite
  - C. mites grow on simple agar-agar
  - D. you find calcifications on ultrasound

*Several of the answers to the following questions may be correct. You are asked to identify the correct pattern of these:*

- A. Only statement i is correct.
  - B. Statement i, ii and iv are correct
  - C. Statement ii and iii are correct
  - D. Statement i and iv are correct
3. Demodex mites are thought to be key pathogenic factors of which facial diseases:
    - i. Acne vulgaris: Comedones, papules and pustules, mainly in young adults
    - ii. Pityriasis folliculorum: Itching/burning, faint erythema and 'frosted' appearance in women
    - iii. Rosacea-like demodicidosis: Follicular scaling, superficial papulovesicles/vesicopustules, without flushing, erythema or teleangiectasia
    - iv. Seborrhoeic dermatitis: Erythema and scaling in seborrhoeic areas

3. If demodicidosis is diagnosed the possible treatments include:
  - i. topical crotamiton
  - ii. systemic tetracycline
  - iii. topical lindane 1%
  - iv. topical benzoyl benzoate

*Suggested answers:*

1.C. Two types of mite reside in the follicle: Demodex folliculorum (in the infundibulum) and Demodex brevis (deeper follicle and sebaceous gland). They are too small for catching with a needle, cannot be cultured and do not show in ultrasound scans.

2.A. The mite-prevalence is thought to be 100% in middle-aged or older individuals. Only if 5 or more mites are seen per low power field or cm<sup>2</sup> in a cynaloacrylate skin surface biopsy is it clearly pathological.

3.C. Pityriasis folliculorum, Rosacea-like demodicidosis, Demodicidosis graves (similar to severe granulomatous rosacea) and Demodex blepharocconjunctivitis have been associated with mites. They may also aggravate rosacea, but mites are allegedly absent from acne lesions. Mites have not been implied in seborrhoeic dermatitis.

4.D. Many drugs have been recommended: salicylic acid, retinoids, sulphur, topical metronidazole, etc. One randomised study has described acaricidal activity of crotamiton 10% used once daily and benzyl benzoate 10% used twice daily.

Recommended answers (based on Balma B, Sticherling M: Demodicidosis revisited. Acta Derm Venereol 2002; 82: 3-6).