CLINICALCHALLENGE

Questions for this month's clinical challenge are based on articles in this issue. The style and scope of questions is in keeping with the MCQ of the College Fellowship exam. The quiz is endorsed by the RACGP Quality Assurance and Continuing Professional Development Program and has been allocated 4 CPD points per issue. Answers to this clinical challenge will be published next month, and are available immediately following successful completion online at www.racgp.org.au/clinicalchallenge. Check clinical challenge online for this month's completion date.

Rachel Lee

SINGLE COMPLETION ITEMS

DIRECTIONS Each of the questions or incomplete statements below is followed by five suggested answers or completions. Select the most appropriate statement as your answer.

Case 1 – Sean O'Laughlan

Sean O'Laughlan, 60 years of age, is a parks officer who presents for his regular scripts. He attends infrequently – you discuss several preventive health issues and complete a skin check.

Question 1

'Red flags' can alert to high risk patients. Which is NOT a recognised 'red flag' for basal cell carcinoma (BCC):

A. organ transplant recipient
B. presence of numerous naevi
C. previous multiple solar keratoses
D. history of large sun exposure
E. lesion in area of previous skin cancer treatment.

Question 2

You biopsy a suspicious area on Sean's cheek. The pathology demonstrates a BCC. BCCs with 'aggressive' growth patterns are characterised by:

A. thin cords of basaloid cells
B. thin cords of fibrotic stroma
C. small clusters of fibrotic stroma
D. homogenous changes to basaloid cells
E. pallisading cords of mixed cells.

Question 3

Sean weighs his treatment options. What do you tell him about Mohs surgery? It:

A. is readily available in any rural centre with a pathologist
B. involves vertical 'bread loaf' tissue slicing techniques
C. is rapidly performed by most practitioners
D. has a better cure rate than standard surgery
E. is inappropriate for recurrent skin tumours.

Question 4

Sean asks about radiotherapy. You explain radiotherapy:

A. is usually spread over 6 months
B. requires up to 20 daily fractions over 1 month
C. results in immediate complications but no delayed complications
D. offers lower recurrence rates than surgical management
E. is mostly used in young patients.

Case 2 – Anastasia Kouros

Anastasia Kouros, 35 years of age, is a primary school teacher who presents with blistering and crusting lesions on her arm and elbow.

Question 5

You suspect bullous impetigo. Which of the following organisms causes bullous impetigo:

A. coagulase negative *Staphylococcus aureus*
B. coagulase positive *S. aureus*
C. Group A Streptococcus
D. *Streptococcus pyogenes*
E. varicella zoster.

Question 6

You consider other potential causes. Which of the following is a cause of immunolbullous blistering:

A. medications
B. pompholyx eczema
C. porphyria cutanea tarda
D. pemphigus vulgaris
E. mastocytosis.

Question 7

Anastasia's bullae persist, are intensely itchy and now spread to her knees and back. You consider dermatitis herpetiformis. Which of the following supports this diagnosis:

A. mastocytosis deposits in the upper dermis
B. neutrophil micro-abscesses in the papillary dermis
C. amyloidosis deposits in the papillary dermis
D. immunoglobulin A deposition in the basement membrane zone
E. immunoglobulin G deposition in the upper papillary dermis.

Question 8

Anastasia worries she may have porphyria as her principal has pophyria cutanea tarda. Which of the following is the most diagnostic investigation for pophyria cutanea tarda:

A. urine porphyrin levels
B. serum ferritin level
C. liver function tests
D. alpha-fetoprotein level
E. skin biopsy and light microscopy.

Case 3 – Marie-Claire Baptiste

Marie-Claire Baptiste, 55 years of age, is a chef who complains of generalised itch. No rash is visible, you can identify no new triggers and she has already tried simple symptomatic management.

Question 9

Which of the following would be least useful as part of your initial pruritus screening tests:

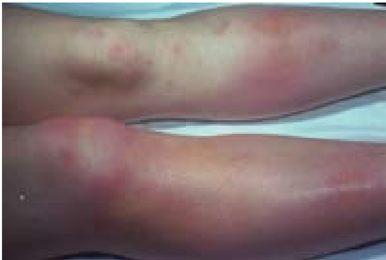
A. liver function tests
B. iron studies
C. erythrocyte sedimentation rate
D. urea and creatinine
E. thyroid function tests.

Question 10

Marie-Claire's itch resolves. Two years later she presents with changes on her legs (*Figure 1*). Which of the following is the most likely underlying cause in Marie-Claire's case:

A. irritable bowel syndrome
B. pregnancy
C. HIV
D. new medication
E. systemic lupus erythematosus.

Question 10. Figure 1

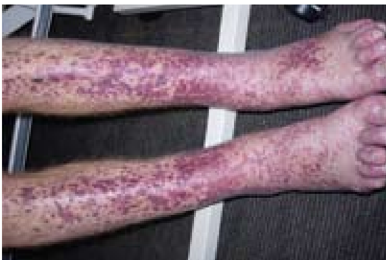


Question 11

What if Marie-Claire's legs instead looked like *Figure 2*? Which of the following has been associated with this type of rash:

A. Campylobacter infection
B. deep fungal infection
C. inflammatory bowel disease
D. rheumatoid arthritis
E. none of the above.

Question 11. Figure 2



Question 12

If the rash does look like *Figure 2*, which of the following is the most important investigation you recommend to Marie-Claire:

A. urinalysis
B. urine electrophoresis
C. throat swab for gonorrhoea
D. serum calcium levels
E. HLA subtyping.

Case 4 – Carlos Moretti

Carlos Moretti, 60 years of age, is a retired viticulturist. During a routine skin check you note an ill defined pigmented lesion on his neck.

Question 13

You suspect lentigo maligna. What dermoscopic feature would be diagnostic of this:

A. annular granular structures
B. asymmetric peifollicular openings
C. pseudonetwork
D. reticular network
E. interfollicular peppering.

Question 14

Carlos also has a lesion on his foot. Which of the following dermoscopic features would lend weight to a diagnosis of acral lentiginous melanoma:

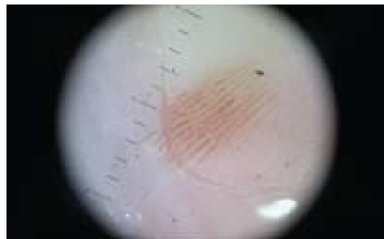
A. furrow pattern
B. fibrillar pattern
C. lattice pattern
D. parallel ridge pattern
E. annular pattern.

Question 15

The dermoscopic appearance of Carlo's foot lesion is demonstrated in *Figure 3*. What pattern does this show:

A. parallel furrow pattern
B. fibrillar pattern
C. lattice pattern
D. parallel ridge pattern
E. annular pattern.

Question 15. Figure 3

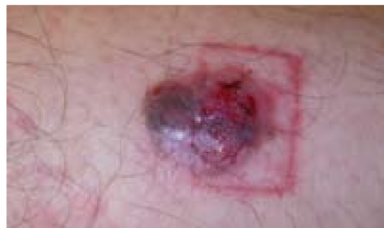


Question 16

Poor Carlos has a third suspicious lesion (*Figure 4*).
What feature would be classic on dermoscopy for this lesion:

A. inverse network
B. branched streaks
C. atypical vascular pattern
D. pseudopods
E. milky red veil.

Question 16. Figure 4



ANSWERS TO JUNE CLINICAL CHALLENGE

Case 1 – Brad Britt

1. Answer D

A nontreponemal test such as the RPR test provides an index of the activity of syphilis infection and usually becomes nonreactive in time. Specific tests such as TPHA often remain reactive for years. PCR or dark ground microscopy can be performed on infectious lesions but dark ground microscopy is only available in specialist centres. Throat swabs are unhelpful.

2. Answer B

Brad has secondary syphilis and the best treatment is 1.8 g benzathine penicillin IM as a stat dose. Doxycycline for 14 days is second line for penicillin allergy and IM procaine penicillin for 10 days is a correct but painful option. Options C and E are for late latent or syphilis of unknown duration.

3. Answer A

A fourfold drop in titre of RPR at 6 months after treatment indicates an adequate response to treatment.

4. Answer D

Immediate treatment should be offered to contacts of people with infectious syphilis without waiting for serology if sexual contact was within 90 days, as initial serology may be negative.

Case 2 – Kylie Spiteri

5. Answer A

Increased Mobiluncus species is part of the Nugent score the laboratory based 'gold standard' definition of BV. However, it is not part of the Amsel diagnostic criteria. The other factors listed are Amsel criteria and 3 of 4 factors must be present to confidently diagnose BV.

6. Answer C

Atopobium vaginae and novel Clostridial species BVAB 1, 2 and 3 are highly specific for BV. Gardnerella vaginalis is often associated with BV but also occurs in women without BV. The other organisms listed are not associated with BV.

7. Answer E

BV has pregnancy related complications including those listed in A–D. However, there is no evidence that BV increases the risk of instrumental delivery.

8. Answer D

Kylie is pregnant and oral clindamycin is a 'category A' choice. Oral therapy is recommended as topical therapy may not sufficiently penetrate the endometrial cavity. Evidence suggests transmission between female partners so in this setting offering Kylie's partner Sandra treatment provides the best chance of protecting the foetus from BV complications.

Case 3 – Kumiko Kushimori

9. Answer A

It is not appropriate for reception staff to ask about potentially sensitive information such as sexual orientation. It is useful to train reception staff to use inclusive language and to include information about sexual orientation on the clinic intake form.

10. Answer E

Asking about contraception and condoms assume Kumiko's new partner is male. It is best to enquire about behaviour or attractions rather than assigning an identity term that the woman may not identify with. In addition sexual orientation can be fluid so definitive (and mutually exclusive) categories are often inappropriate.

11. Answer D

HPV occurs in lesbian women and cervical dysplasia occurs in similar rates in all women so she should have regular Pap tests. STIs do occur in lesbian women and safe sex is recommended. PID is less frequent than in heterosexual women. Although lesbian women have some risk factors for blood borne viruses (eg. they are 12 times more likely to inject drugs than heterosexual women), blood borne viruses are still rare.

12. Answer D

Although using latex dams, condoms for sex toys and gloves are all theoretical safe sex practices they are not widely used. Some women avoid oral sex during episodes of herpes simplex but not altogether. Common strategies to reduce infection risk include hand washing after contact with secretions or using different fingers for different sites.

Case 4 – Janette Lim

13. Answer C

Levonorgestrel preparations should be taken as soon as possible after unprotected sex but may be effective up to 5 days after. New preparations involve 1.5 mg of levonorgestrel as a stat dose and they are available without prescription from a pharmacy.

14. Answer B

Janette is mid-cycle and can start immediately with the 'active' pills but will not be covered for 7 days. It is advisable to follow up to ensure she is not pregnant but she is at high risk for unwanted pregnancy and should be encouraged to start immediately.

15. Answer A

Breakthrough bleeding is common when skipping 'inactive' pills. A week break is recommended to settle the bleeding but no longer. Formulations with extended hormone pills are designed to simplify this sort of regimen but would not prevent breakthrough bleeding.

16. Answer D

Antiprostaglandins are first line for managing irregular bleeding. They must be used in adequate dosage and only required when the bleeding is present. Tranexamic acid is second line and adding the COCP for 4–6 weeks may be effective. Removal of the implant may be required but other options are usually tried first.

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