clinical challenge

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.gplearning.com.au. Check clinical challenge online for this month's completion date.

Deepa Daniel

Single completion items

CPD

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

John Moussa

John Moussa, 28 years of age, is a previously well accountant. He presents to you today with an exquisitely tender lump in his postanal region. On examination you diagnose an acute pilonidal abscess.

Question 1

You decide to drain the abscess under local anaesthetic. You advise John that the chance of recurrence of pilonidal abscess after this procedure is:

A. 5%
B. 20%
C. 40%
D. 60%
E. 80%.

Question 2

After the procedure, John asks for some general information about pilonidal sinus. You advise him that:

A. being hirsute is not a risk factor for development of a pilonidal sinus
B. the disease is less common in those aged over 40 years
C. women are affected at a similar rate to men
D. pilonidal sinuses are often of congenital origin
E. antibiotics are a reliable alternative to surgical options for definitive management of focal pilonidal abscesses.

Question 3

John returns a year later with a small discharging sinus and mild associated discomfort. You send him to a colorectal surgeon for further management. Regarding the pit-picking method, which of the following statements is true:

A. gauze can be used to clean out the track once the pit is removed
B. the procedure should not be performed repeatedly on the same patient
C. the wound should be left open to heal
D. it has a recurrence rate of over 40%
E. it often involves a short inpatient hospital stay.

Question 4

John is concerned about his options if the abscesses recur in the future. You advise him of some available options if this occurs, including the Bascom cleft lift operation and the modified Karydakis operation. Which of the following statements is INCORRECT regarding these procedures:

A. patients are usually able to return to work within 2–4 weeks of surgery
B. both procedures involve excision of minimal amounts of skin/tissue
C. patients can usually be discharged from hospital within 24 hours of surgery
D. the recurrence rate is 1–4%
E. both involve midline primary closure and elevation of the natal cleft.

Case 2

Stuart McMillan

Stuart McMillan, 56 years of age, is an architect. He presents with 3 weeks of distressing anal itch. He tells you he has had milder, more short lived, episodes over the past 10 years.

Question 5

You start taking a comprehensive history from Stuart, including his bowel habits, and medications/topical agents used so far to treat the itch. Dietary factors that may be contributing to Stuart's anal itch include all of the following EXCEPT:

A. caffeine
B. milk
C. shellfish
D. lemon/lemon juice
E. chocolate.

Question 6

Stuart confides that he has had infrequent receptive anal intercourse and is concerned that he has a sexually transmissable infection (STI). Which of the following statements is true regarding anal STIs:

A. consensual anal intercourse causes abnormal anal sphincter function
B. inadequate lubrication may cause minor skin trauma leading to pruritis
C. latex condoms do not cause contact dermatitis
D. anal STIs do not generally cause pruritis
E. none of the above.

Question 7

You consider other possible infective causes of Stuart's itch, including erythrasma, which is a cutaneous infection caused by which organism:

A. *Enterobius vermicularis* (threadworm)
B. *Staphylococcus aureus*
C. *Treponema pallidum* (syphilis)
D. *Corynebacterium minutissimum*
E. *Propionibacterium acnes*.

Question 8

Stuart's investigations come back normal, and you treat Stuart for benign anal pruritis by prescribing potent topical steroids. Stuart returns after 2 weeks with ongoing itch. Sometimes successful treatment options for intractable pruritis ani include:

A. cryotherapy to areas of itch
B. topical 0.006% capsaicin preparation
C. vigorous cleaning of the perianal area of ensure adequate hygiene
D. injected methylene blue
E. injected local anaesthetic.

Case 3

Marie Desouza

Marie Desouza, 56 years of age, presents following multiple episodes in the past 2 weeks of bright red bleeding on the toilet paper, separate from the faeces. She currently has no perianal pain.

Question 9

Given this history, which of the following conditions is the most likely diagnosis for Marie:

A. anal fissure
B. perianal haematoma
C. rectal carcinoma
D. internal haemorrhoids
E. rectal polyps.

Question 10

Per rectum examination is normal. You suspect a first or second degree haemorrhoid and treat accordingly. You also refer Marie to a colorectal surgeon for sigmoidoscopy to examine the rectum. What is the average length of the rectum in an adult:

A. 5 cm
B. 7 cm
C. 12 cm
D. 18 cm
E. 25 cm.

Question 11

Marie returns in 2 weeks, before surgical consultation, complaining of severe pain with defecation and persistent bleeding. Before examination you consider the differential diagnoses, including a third or fourth degree haemorrhoid, or an anal fissure. The appropriate urgent treatment for fourth degree haemorrhoids is:

A. rubber-band ligation
B. sclerosant injection
C. surgical haemorrhoidectomy
D. lateral subcutaneous sphincterotomy
E. none of the above.

Question 12

Treatment of an anal fissure can include all of the following, EXCEPT:

A. topical GTN ointment
B. sclerosant injection
C. increase fibre intake and the use of mild laxatives
D. botulinum toxin injection
E. topical local anaesthetic gel.

Case 4

Janice Wong

Janice Wong, 19 years of age, is a student. She was recently discharged from hospital after emergency splenectomy following a motor vehicle accident. She was previously well before the accident and is recovering well. She requires information regarding postsplenectomy care.

Question 13

Janice will require prophylactic antibiotics. You advise her that she will require amoxicillin daily for:

A. the next 2 years
B. the next 10 years
C. the next 30 years
D. the rest of her life
E. all of the above.

Question 14

Janice has not yet received any postsplenectomy vaccinations, and you discuss her requirements. If she gets the Pneumovax 23 vaccine today, her next booster pneumococcal vaccines will be due:

A. in 5 years only
B. in 5 years and again 5 years after that
C. in 5 years and again at the age of 65 years
D. at the age of 65 years
E. she does not require a booster vaccine for pneumococcus.

Question 15

You provide Janice with an emergency course of antibiotics and advise her to start taking these antibiotics immediately if she starts noticing:

A. headache
B. afebrile coryzal symptoms
C. generalised muscle aches and pains
D. fevers and/or shivers
E. all of the above.

Question 16

In patients with asplenia, what would you expect to find on full blood examination and blood film:

A. Howard-Jolly bodies and tear-drop cells
B. Howard-Jolly bodies and lowered IgM memory B-cell markers
C. Burr cells and Howard-Jolly bodies
D. Heinz bodies and tear-drop cells
E. red blood cell rouleaux and tear-drop cells.

Answers to May clinical challenge

Case 1
Jason Burrows

1. Answer D

Risk factors for diabetic ketoacidosis (DKA) in patients with established IDDM include all of the possible answers, except Jason's gender. Females with diabetes are at higher risk of developing DKA than males.

2. Answer C

Combined with the high BSL level, a large amount of urinary ketones implies a high risk of DKA.

3. Answer B

Jason's initial infusion could include 0.9% normal saline up to twice the usual daily requirement and an insulin infusion with a short acting insulin such as actrapid/novorapid. 5% dextrose in 0.45% normal saline is appropriate only if his glucose level is less than 15 mmol/L. He does not require rapid resuscitation and at this point should be kept nil by mouth.

4. Answer B

Therapy for cerebral oedema involves fluid restriction, 0.45% normal saline, and mannitol. It occurs in approximately 0.4–3.1% of patients with DKA, is more likely in patients with a lower partial pressure of arterial carbon dioxide, and sudden diuresis is not a typical warning sign. A decreasing heart rate is a possible sign of increasing cerebral oedema.

Case 2
David Joseph

5. Answer E

Normal references ranges for a 16 month old child are: heart rate 90–150 bpm, respiratory rate 24–40 bpm, minimum SBP of >70 mmHg.

6. Answer B

A positive Kernig's sign is when there is apparent pain on flexing the hip to 90 degrees with the knee extended.

7. Answer D

Ceftriaxone is an essential emergency drug in any clinic, and is the preferred antibiotic to administer if considering meningitis.

8. Answer C

'L' stands for when last food or liquid was consumed, in case the patient requires intubation or an anaesthetic.

Case 3
Holly Chen

9. Answer A

This presentation is not consistent with asthma, which involves the smaller airways. The differential diagnosis for croup includes epiglottitis, bacterial tracheitis, inhaled foreign body, retropharyngeal abscess, angioedema, and diptheria.

10. Answer B

For mild to moderate croup it is appropriate to administer 1 mg/kg prednisolone syrup with review in 1 hour to ensure clinical improvement. Croup is a clinical diagnosis – nasopharyngeal aspirate is unnecessary and causes undue distress. Nebulised adrenaline is appropriate for the severe croup.

11. Answer C

Salbutamol can be helpful if wheeze is present (eg. laryngotracheobronchitis). There is some evidence for heliox-oxygen for severe croup but no evidence for the other options listed.

12. Answer D

Clinical improvement after nebulised adrenaline should be expected within 10–30 minutes.The other statements are correct.

Case 4
Helena Theos

13. Answer A

Hypoglycaemia is not a specific sign of a skull fracture. All other responses are correct.

14. Answer D

The CHALICE guidelines can specifically be used to help determine whether Helena should have a CT scan performed.

15. Answer B

CT scanning of the brain in a child is equal to the cumulative exposure of 115 chest X-rays (not 315) in terms of exposure to ionising radiation. The other statements are correct.

16. Answer E

The majority of symptoms of post-concussion syndrome will indeed resolve within 3 months of injury. There is a link between early return to activity and prolonged post-concussive symptoms, and Helena should be gradually introduced to activity once she no longer has symptoms. One-third of parents report personality changes in their children after a head injury. Second impact syndrome can occur with repeat head injury in those who are still symptomatic of a first head injury.

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