A patient with a red eye

This week’s question is on a patient with a red eye and is taken from the onExamination revision questions for the MRCGP exam.

A 25 year old woman with myopia presents with a two day history of redness in her right eye. She also has dull ocular pain, photophobia, and blurry vision. She has some epiphora in the affected eye. No ocular discharge is seen.

Which one of the following is the most likely diagnosis?

A  Acute anterior keratitis
B  Acute anterior uveitis
C  Bacterial conjunctivitis
D  Chlamydial conjunctivitis
E  Viral conjunctivitis

Submitted by Steve Turner
Cite this as: BMJ/2011;342:c6846

CASE REPORT
An asthmatic child with a troublesome cough

A 12 year old girl with an eight year history of asthma presented to her family doctor for the third time in four weeks with ongoing, troublesome, non-productive cough. The cough was described as “coming on in fits” and was disturbing her sleep. By day, the cough could be brought on by exercise or breathing in cold air but sometimes came on “out of the blue.” Once or twice a day, the cough would induce retching, and she had vomited on occasion. Over the past month she had been prescribed five days of prednisolone and a week’s worth of clarithromycin, and a long acting beta agonist had been added to her low dose inhaled steroid, all to no effect. She had no history of wheezing, and the only history of shortness of breath was during the coughing.

She had two hospital admissions for asthma at ages 6 and 7 and her attendance at the practice asthma clinic had been good. She also had eczema and mild hay fever. Her mother had asthma and was a regular smoker. Her immunisations were all up to date. Examination was normal aside from a right sided subconjunctival haematoma.

1  What is the most likely diagnosis?
2  What investigations, if any, are appropriate?
3  What is the next management step?
4  How long will these troublesome symptoms persist?

Submitted by Steve Turner
Cite this as: BMJ/2011;342:c6846

ANATOMY QUIZ
Axial computed tomography image through the neck (soft tissue windows)

Identify the structures labelled A, B, and C in this axial computed tomography image of the neck.

Submitted by James Halls
Cite this as: BMJ/2011;342:d249

FOR SHORT ANSWERS
See p 333
FOR LONG ANSWERS
Go to the Education channel on bmj.com

STATISTICAL QUESTION Meta-analyses IV

Researchers undertook a meta-analysis of the long term efficacy of approved anti-obesity drugs in reducing weight and improving health status. Only double blind randomised placebo controlled trials of drugs used in adults (age over 18 years) for one year or longer were included.

The primary outcome was change in weight from baseline. A separate meta-analysis was performed for each drug identified. Fourteen trials of orlistat were found and results of the meta-analysis were presented in a forest plot (figure). Orlistat was more effective than placebo in reducing weight; with a mean difference in weight loss of 2.87 kg (95% confidence interval 2.53 to 3.21) greater than placebo.

Which of the following statements, if any, are true?

a)  The line of no effect would be a vertical line going through unity on the forest plot
b)  A negative weighted mean difference indicates placebo was more effective than orlistat in reducing weight
c)  There was statistical heterogeneity between the sample estimates
d)  The overall estimated change in weight with orlistat was significantly different from placebo at the 5% level of significance
e)  It can be concluded that placebo was ineffective at reducing weight

Forest plot of the long term effect of orlistat compared with placebo on weight change. For each trial and the total overall effect, the mean difference in weight change was derived as orlistat minus placebo

Submitted by Philip Sedgwick
Cite this as: BMJ/2011;342:d540

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