FOR SHORT ANSWERS
See p 1156

FOR LONG ANSWERS
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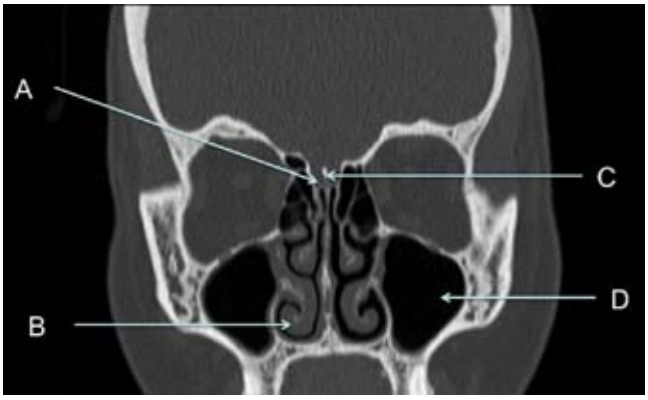

ANATOMY QUIZ

Coronal computed tomography image through the face (bone windows)

Identify the structures labelled A-D in this coronal computed tomography image through the face (bone windows).

Submitted by James Halls

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CASE REPORT

Forgotten, but not gone

A boy born post-term weighing 3.6 kg with normal Apgar scores was noticed to have generalised skin petechiae at birth but no other obvious clinical abnormalities. On investigation, he had thrombocytopenia (platelet count 29×10^9/l), but other haematological markers were normal. He was discharged after bacterial sepsis and alloimmune thrombocytopenia had been excluded. Unfortunately there was not sufficient blood available to investigate for congenital viral infections. Thrombocytopenia resolved spontaneously at age 16 days (platelet count 176×10^9/l).

The infant was readmitted at 10 weeks of age for poor feeding, diarrhoea, and occasional vomiting. On examination he was found to be pale and thin; weight was at the 4th percentile. He had mild hepatosplenomegaly, a soft systolic murmur, mild anaemia (haemoglobin 98 g/l), and slightly abnormal results on liver function tests (aspartarte aminotransferase 75 U/l, alanine aminotransferase 97 U/l, and alkaline phosphatase of 602 U/l). There was no evidence of hepatitis B surface antigen, hepatitis A IgM, hepatitis C IgG, toxoplasma IgA, or IgG antibodies in serum. Cytomegalovirus and parvovirus B19 IgG were detected in serum, suggesting either passive transfer of maternal antibodies or past infection. Interestingly, rubella IgM antibody was strongly positive in serum and rubella IgG was also positive.

The infant's mother recalled attending hospital at 11 weeks' gestation with fever, swollen left knee, and a macular rash starting on the face and spreading to the trunk and abdomen, which was considered to be a drug reaction.

1 What is your first suspected diagnosis?
2 How do you confirm that this infection is congenital and was not acquired postnatally?
3 Why is this infection still prevalent in the United Kingdom?

Submitted by Emilie Sanchez, Sowsan F Atabani, Jana Kaplanova, Paul Griffiths, Anna Maria Geretti, Tanzina Haque

Cite this as: *BMJ* 2010;341:c5246

ON EXAMINATION QUIZ

Congenital neck masses

This week's question is on congenital neck masses and is taken from the onExamination revision questions for the MRCS part 1 exam.

Which of the following are congenital neck masses in infants?

A Branchial cyst
B Cavernous haemangioma
C Cystic hygroma
D Parotid myxoma
E Thyroglossal cyst

STATISTICAL QUESTION

Reference and normal ranges

Researchers recorded the forehead temperature of 1000 apparently healthy subjects aged between 18 and 65 years using a handheld infrared thermometer. The sample mean forehead temperature was 33.3°C, with a standard deviation of 1.18°C. The normal range for forehead temperature, calculated as 1.96 standard deviations either side of the sample mean, was reported as 31.0-35.6°C.

A separate study measured a series of immunohaematological variables in 150 healthy adults to establish haematological reference ranges for HIV negative adults from the Central African Republic. Ranges for each variable were derived as the interval from the 2.5th to 97.5th centile of the sample measurements. The reference range for erythrocyte counts was reported to be $4.50\text{-}6.10\times10^{12}$/l for men and $3.42\text{-}5.44\times10^{12}$/l for women.

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

a) People with a forehead temperature outside the normal range have abnormal measurements
b) Only healthy people have a forehead temperature in the normal range
c) The calculation of the normal range for forehead temperature assumed the sample measurements were normally distributed
d) The reference range for erythrocyte counts contains the central 95% of the sample measurements

Submitted by Philip Sedgwick

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