What drug can cause cleft lip and palate if taken during pregnancy? And which drug should therefore be used instead?

Phenytoin can cause cleft lip/palate. Monotherapy with carbamazepine is probably the safest. Risks of major congenital malformations related to specific anti-epileptic drugs Carbamazepine taken as a single drug treatment (known as monotherapy) carries the lowest risk, with 2.2 babies born with MCMs in 100 women taking the drug (2.2 per cent) Taking sodium valproate as monotherapy at a daily dosage under 1000mg, carries a risk of 5.1 in 100 (5.1 per cent) Taking sodium valproate as monotherapy at daily doses over 1000mg carries a risk of 9.1 in 100 (9.1 per cent) Drug combinations that include sodium valproate have a significantly higher risk of MCMs than combinations that do not include this drug. Taking lamotrigine as monotherapy at daily dosages of 200 mg or less carries a risk of 3.2 in 100 (3.2 per cent) Taking lamotrigine as monotherapy at a daily dosage above 200 mg carries a risk of 5.4 in 100 (5.4 per cent) Taking carbamazepine and sodium valproate together carries a risk of 8.8 in 100 (8.8 per cent) Taking sodium valproate and lamotrigine together carries a risk of 9.6 in 100 (9.6 per cent) The information from the study did not include any specific data on vigabatrin, gabapentin, topiramate, tiagabine, oxcarbazepine, levetiracetam and pregabalin.1

A 29 year old Nepalese man presented with haemoptysis. He had moved to the UK 2 months previously to train in hotel management.There was no history of trauma.

(a) How could you confirm with that the blood is from the lungs and not the stomach?(Give two methods)

Alkaline pH, foaminess, or the presence of pus may sometimes suggest the lungs as the primary source of bleeding rather than the stomach.

(b) What is the differential diagnosis?(Give eight)

Infection(URTI,pneumonia,TB,lung abscess), carcinoma, bronchiectasis, pulmonary oedema, PE, inherited or acquired coagulation disorder, wegener's granulomatosis, goodpastures syndrome.

(c) How would you investigate this patient?(Give eight)

FBC, Coag screen, UE, LFTs, Blood group and crossmatch, ABG, SpO2, CXR, ECG, Sputum M/C/S, and dipstick urine.

(d) How would you manage this patient?(Give four)

ABCs, O2, suction, face mask, 2 large bore IV cannulae, IV fluids, blood transfusion if indicated,correct coagulopathy, respiratory consultation.

(e) How would you define massive haemoptysis and what is its significance?

Massive hemoptysis is variably defined as expectoration of blood exceeding 100 to 600 mL over a 24-hour period. Although only 5% of haemoptysis is massive some studies report a mortality rate of up to 80% in this group. Cahill, BC, Ingbar, DH. Massive hemoptysis. Assessment and management. Clin Chest Med 1994; 15:147.

Adams, H P Jr, del Zoppo, G, Alberts, MJ et al.Stroke 2007; 38:1655.

The patient gets worse and the monitor shows VT, he has a pulse but his BP is 85/49. What will you do now?

He is haemodynamically unstable and has a VT due to digoxon toxicity. DC cardioversion is relatively contraindicated here unless all other measures have been exhausted. The most useful drugs in this setting are lignociane and phenytoin. Amiodarone would increase digoxin levels and is contraindicated.

(e) What is a right ventricular infarct? What type of M.I is it likely to occur with? 6. f) How do you diagnose it and what is it important to treat it with?

When the right ventricle is taken out by an inferior M.I. ST elevation in V1 with inferior M.I. suggest it, especially if it is greater then in V2 and V3. Answer to f) Answer: Perform ECG with V4R. Ensure that IV fluid is given to maintain adequate filling pressure in right ventricular failure. 40% of patients with inferior wall infarctions have right ventricular and/or posterior wall involvement, which predisposes them to more complications and increased mortality.

Answer to Question 5 of 10

A 50 year old truck driver presented with dysuria and painful wrists, shoulders, knees and ankles.He also complained of purulent eye discharge. On examination he was febrile (38.5 degrees) and had a small joint effusion in his right knee. His dipstick urine test revealed nitrites, leukocytes and blood.

(a) What is the diagnosis?

Reiters syndrome.

(b) Name five investigations which should be carried out?

FBC, UE, MSU, blood cultures, knee synovial fluid aspiration, stool culture (as enteric infections can cause a reactive arthritis), CRP, ESR, and plain radiographs to exclude other diagnoses.

(c) Name three pathogens which can cause a reactive arthritis?

The classical pathogens for reactive arthritis are: Chlamydia trachomatis, Yersinia, Salmonella, Shigella and Campylobacter, and perhaps Clostridium difficile and Chlamydia pneumoniae.

(d) Name three management steps in the emergency department?

NSAIDS, Rheumatology consultation, Infectious diseases consultation to discuss appropriate additional tests and medications for symptomatic relief or microbiologic cure and to ensure follow-up treatment.

(e) What is the prognosis of this condition?

Most patients remit completely or have little active disease six months after presentation. Chronic persistent arthritis, lasting more than six months, occurs in only a small proportion of patients.

A 4 week old baby boy is brought in by his parents who say that he has been vomiting after every feed they say that the vomiting is projectile in nature. You wonder about pyloric stenosis. You establish venous access and give a fluid bolus of 10ml/kg

(a) What age group are affected by pyloric stenosis and what exactly is it?

Pyloric stenosis is hypertrophy of the muscles surrounding the pylorus of the stomach. It is uncertain whether there is a real congenital narrowing or whether there is a functional hypertrophy of the muscle that develops in the first few weeks of life. Age affected: Usually presents between 3 and 6 weeks of age Late presentation up to 6 months can occur1

(b) What is helpful when making the diagnosis?

Palpable 'tumour' in right upper quadrant best felt from left during test feed Visible peristalsis often seen Diagnosis can be confirmed by abdominal ultrasound Needs assessment of length, diameter and thickness of the pylorus A wall thickness of great than 3mm supports the diagnosis Biochemically a hypochloraemic alkalosis exists

(c) How is it treated?

Correct dehydration over a 24 - 72 hour period Nasogastric tube is often required Ramstedt's pyloromyotomy first described in 1911 Transverse right upper quadrant or circumumbilical incision Longitudinal incision in pylorus down to mucosa Incision extend from duodenum onto the gastric antrum Need to try and avoid mucosal perforation pyloromyotomy

Your Ans:

(d) Another child comes in with similar symptoms but doesn't appear too dehydrated and the vomiting is not really

projectile. What do you need to do to try to establish the diagnosis?

Do a test feed to assess the nature of the vomiting Also establish the total amount that they are feeding, should be about 150mls per kg if they are massively overfeeding then this may represent the main problem.

Answer to Question 20 of 20

A 76 year old man presented with a sudden onset tearing chest pain radiating to his back. His chest X Ray is shown.

(a) What is the differential diagnosis?(Name five)

Myocardial ischemia due to an acute coronary syndrome with or without ST segment elevation, pericarditis, pulmonary embolus, aortic regurgitation without dissection, aortic aneurysm without dissection, musculoskeletal pain, mediastinal tumors, pleuritis, cholecystitis, atherosclerotic or cholesterol embolism, peptic ulcer disease or perforating ulcer, acute pancreatitis.

(b) Name four findings on a CXR which are consistent with aortic dissection?

Widening of the aorta, pleural effusion , widening of the aortic contour, displaced calcification, aortic kinking,a pleural cap and opacification of the aorticopulmonary window.

(c) What are the risk factors for aortic dissection(Name five)?

Hypertension, preexisting aortic aneurysm, inflammatory diseases that cause a vasculitis , disorders of collagen , a positive family history, bicuspid aortic valve, aortic coarctation, turner syndrome, coronary artery bypass graft surgery (CABG), previous aortic valve replacement, and crack cocaine.

(d) What are the potential complications of an ascending aortic aneurysm?(Name five)

Acute aortic insufficiency, acute myocardial ischemia or MI, cardiac tamponade and sudden death , hemothorax and exsanguination , neurologic deficits, horner syndrome , and vocal cord paralysis.

(e) How are aortic dissections classified?

The Daily system classifies dissections that involve the ascending aorta as type A, regardless of the site of the primary intimal tear, and all other dissections as type B. In comparison, the DeBakey system is based upon the site of origin with type 1 originating in the ascending aorta and propagating to at least the aortic arch, type 2 originating in and confined to the ascending aorta, and type 3 originating in the descending aorta and extending distally or proximally.