Pre-Course Questions: Part 2

Neurology SBA 1

Migraine treatment

A 32-year-old woman presents with intermittent headaches lasting around 24 hours, associated with nausea and sensitivity to movement, light and sound. The frequency of the headaches is four or five per month. What is the best prophylactic treatment to give her to try and prevent the headaches?

Sumatriptan
Paracetamol
Verapamil
Ibuprofen
Propranolol

Ans: E. Propranolol

Management of migraine involves treatment of the acute episode and prophylactic treatment in patients with regular headaches (usually greater than 3 per month). Acute treatment is with simple analgesia (and antiemetic if necessary) initially, but some patients may benefit from using a triptan. A number of different drugs can be used for prophylactic treatment including propranolol, amitriptyline, sodium valproate and topiramate.

Neurology EMQ 1

A. Brown-Sequard syndrome
B. Peripheral neuropathy
C. Myopathy
D. Brainstem lesion
E. Spinal cord compression
F. Anterior spinal cord lesion
G. Neuromuscular junction disorder
H. Plexopathy
I. Posterior spinal cord lesion
J. Motor cortex lesion

Choose which of the above causes is the most appropriate location for each of the descriptions of a neurological deficit.

Q1. A 25-year-old man returns from holiday to Spain and develops sudden weakness of the legs followed a few days later by weakness in the arms. On examination he has weakness in all four limbs and his reflexes are absent.

A1. Answer B. This man most likely has Guillain-Barre syndrome (GBS) i.e. a peripheral neuropathy. His reflexes are absent - a lower motor neurone lesion. Acute ascending weakness in a lower motor neurone pattern is most likely caused by GBS.

Q2. A 65-year-old woman develops weakness in both legs. She has weakness mostly of the flexor muscles in a symmetrical pattern with brisk reflexes. She also has vibration and proprioception impairment in the legs but intact pain and temperature sensation.

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A2. Answer I. This woman has a posterior spinal cord lesion characterized by dorsal column impairment with intact spinothalamic tracts.

Q3. A 50-year-old woman has increasing difficulty rising from a chair over a two month period. On examination she has symmetrical proximal weakness of the legs and also the arms with some pain in the same muscles.

A3. Answer C. This woman has a myopathy characterized by symmetrical proximal weakness.

Q4. A 71-year-old man with known prostate cancer presents with increasing difficulty walking over the last couple of weeks. He has weakness of the flexor muscles in the legs and brisk reflexes. All sensory modalities are impaired in the legs with light touch and pinprick sensation impaired onto the abdomen up to the umbilicus.

A4. Answer E. This gentleman has a spinal cord lesion affecting the whole cord (corticospinal tracts, dorsal columns and spinothalamic tracts). He has a sensory level suggesting a lesion affecting the spinal cord about T10.

Q5. A 50-year-old woman presents with difficulty keeping her head up. She has neck flexion weakness on examination as well as proximal weakness in the arms which is fatigable.

A5. Answer G. This lady has myasthenia gravis, a neuromuscular junction disorder, with characteristic fatigability.

Neurology EMQ 2

1. Juvenile myoclonic epilepsy
2. Hyponatraemia
3. Hypoxia
4. Venous sinus thrombosis
5. Encephalitis
6. Hypoglycaemia
7. Hypocalcaemia
8. Temporal lobe epilepsy
9. Alcohol withdrawal seizures
10. Glioma
11. Head injury
12. Idiopathic generalized epilepsy

Choose which of the above causes is the most appropriate cause of seizures for each of the descriptions below.

Q1. A 42-year-old man presents with a few episodes of altered consciousness. He says that he gets an odd smell before the episodes and occasionally a rising feeling in his stomach.

A1. Answer H. Temporal lobe epilepsy can be associated with a number of symptoms including déjà vu, jamais vu, a rising feel in the stomach and olfactory hallucinations.

Q2. A 65-year-old man presents with confusion and a tremor and appears to be describing visual hallucinations. He then has a tonic-clonic seizure.

A2. Answer I. This gentleman has features of an alcohol withdrawal syndrome.

Q3. A 22-year-old man presents with three generalized tonic-clonic seizures over the last year. He mentions that since the age of 16 he will occasionally get jerking movements of the arms early in the morning.

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A3. Answer A. This man has myoclonus (jerking movements) of the arms, which started in his teens, in association with seizures – the most likely diagnosis is juvenile myoclonic epilepsy.

Q4. A 65-year-old man presents with a tonic-clonic seizure. He had recently been started on a drug for hypertension.

A4. Answer B. Hyponatraemia can cause seizures. This gentleman is likely to have been on a thiazide diuretic leading to SIADH and thus hyponatraemia.

Q5. A 26-year-old woman presents with a headache and confusion and on examination was found to have papilloedema. She has a tonic-clonic seizure whilst still in A+E.

A5. Answer D. The presence of headache, seizures and raised intracranial pressure (the patient has papilloedema) is seen in venous sinus thrombosis. This is more likely than encephalitis which may also cause headache and seizures.

**Gastroenterology EMQ 1**

Liver Disease

The following patients all have secondary causes of deranged liver function tests. Please choose the most appropriate cause from the following list. The items may be used once, more than once or not at all:

A) Alcoholic liver disease  
B) Autoimmune hepatitis  
C) Gilbert’s disease  
D) Haemochromatosis  
E) Hepatocellular carcinoma  
F) Paracetamol overdose  
G) Primary Biliary Cirrhosis  
H) Wilson’s disease

Q1) An 19-year old man was admitted with abdominal pain & jaundice. Previously he had 3 days of diarrhoea & vomiting, but until now had never been ill. O/E he had abdominal tenderness, but no organomegaly. Bilirubin 75 (N=1-22 mmol/L), Albumin 40 (N= 37-49 g/L), ALT 23 (N= 15-35 U/L), ALP 95 (N= 45-105 U/L), GGT 25 (4-35 g/L), INR 1.0 (N= <1.4)

A1) C. Gilbert’s disease  
The only abnormality with this patient is raised bilirubin with no other derangement of the LFTs and nothing to find on clinical examination. This is Gilbert’s disease and is an in-born error of metabolism which causes pre-hepatic jaundice. It is not pathological in any way and is extremely common. Sometimes, after a period of starvation or vomiting patients can become jaundiced. Nicotinic acid can also trigger their jaundice, but the exact mechanism for this not known.

Q2) A 63-year old woman was referred with, abdominal distension and itching. She drank 1 glass of wine per day. There is no history of operations, transfusions or injected drugs. On examination she was jaundiced, had scratch marks and clinically had ascites. Bilirubin 55, Albumin 27, ALT 30, ALP 195, GGT 140, INR 1.7, anti mitochondrial antibodies positive.

A2) G. Primary Biliary Cirrhosis  
Liver diseases are typically divided into those that cause a) hepatocellular picture with a raised ALT/AST such as alcohol, viral hepatitis, autoimmune, drugs, and metabolic diseases like Haemochromatosis and Wilson’s disease - and b) cholestasis with a raised ALP and GGT +/- increased bilirubin such as primary biliary cirrhosis (PBC) and primary sclerosing cholangitis (PSC) or due to drugs like Flucloxacillin or Augmentin. Technically, PBC

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and PSC could be argued to be types of autoimmune hepatitis, but hepatologists regard them as opposite ends of a spectrum. In fact one of the distinguishing factors between the 2 conditions is that if you have raised ALP and GGT then this goes against autoimmune hepatitis. Pruritis/itching is a hallmark of PBC and cholestasis – it can be very distressing for them and in some cases is a reason for liver transplantation. She is cirrhotic as she has ascites, raised INR and low albumin. Anti-mitochondrial antibodies are virtually pathognomonic of PBC.

Q3) A 47-year old man was referred with gynaecomastia and deranged LFTs. He had recently developed diabetes and had developed impotence. He drank 10 units of alcohol per week. Apart from gynaecomastia he also had 4cm hepatomegaly and small testes. Bilirubin 15 Albumin 37, ALT 60, ALP 105, GGT 55, INR 1.0, Glucose 11.3mmol/l (N= 3-6 mmol/l), Ferritin 1450 (N= 15-300 g/L)

A3) D. Haemochromatosis
This man presents with a hepatitic picture, but is also diabetic, has impotence and has raised ferritin. Only alcohol and Haemochromatosis could possibly do this, but he doesn’t drink enough to be classed as alcoholic liver disease. If a patient with apparent liver disease also has a) diabetes due to iron deposition in pancreas b) impotence due to pituitary involvement c) heart failure due to cardiomyopathy d) arthralgia due to chondrocalcinosis then this very likely to be have haemochromatosis, although laboratory and histological confirmation should be sort.

Q4) A 63-year old Pakistani woman was admitted with haematemesis. She has no previous medical history, except for Caesarian section peformed in Pakistan. On examination she was jaundiced, had spider naevi and moderate ascites. An OGD revealed oesophageal varices. Ultrasound shows an irregular liver with 2 focal lesions and ascites. Bilirubin 83, Albumin 26, ALT 31, ALP 118, GGT 75, INR 1.7, alpha feto protein 500 (N= 1-7 kU/L).

A4) E. Hepatocellular carcinoma
This patient presents with an upper GI bleed due to oesophageal varices which is a complication of decompensated liver disease. She has signs of chronic liver disease: jaundice, spider naevi, ascites. The development of ascites and varices suggests portal hypertension which would suggest this patient has an underlying diagnosis of cirrhosis. Her biochemical picture is consistent with decompensated liver disease: elevated bilirubin, low albumin and elevated INR. Patients with cirrhosis typically have low or normal transaminases which reflect the end stage nature of liver. She may well have an underlying diagnosis of viral hepatitis as hepatitis B and C is endemic in this part of the world and any operations would be a risk factor for developing this. Her ultrasound shows an irregular liver consistent with cirrhosis but the fact that there are 2 focal liver lesions and a very elevated alpha feto protein must be assumed to be carcinoma until proven otherwise. Cirrhosis due to any cause of liver disease: alcohol; viral hepatitis; autoimmune hepatitis; or metabolic conditions such as haemochromatosis, can all lead to the development of decompensated liver disease and hepatocellular carcinoma.

Gastroenterology EMQ 2:

Bowel Disease

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The following patients have bowel symptoms. Please choose the most appropriate cause from the following list. The items may be used once, more than once or not at all:

A) Colonic carcinoma
B) Crohn’s disease
C) Diverticular disease
D) Irritable bowel syndrome (IBS)
E) Mesenteric ischaemia
F) Pseudomembranous colitis
G) Tuberculosis
H) Ulcerative colitis

Q1) A 66-year-old woman was admitted to A&E with a 2 day history of severe lower abdominal pain and passing more than 1500 mls of fresh red blood per rectum. She had a history of atrial fibrillation for which she was taking Digoxin. On examination she was distressed and in pain. Her pulse was 110 bpm irregular and blood pressure 85/50 mmHg. There was guarding of the left side of the abdomen.

A1) E. The critical piece of information is the fact that the patient has atrial fibrillation. She is likely to have thrown off an embolus from her left atrium and this has blocked a mesenteric artery. Ischaemia to any organ in the body can cause exactly the same effects as direct damage to that organ whether it be in the brain, liver, kidneys, heart. The differential diagnosis could be severe gastroenteritis that has perforated her bowel or perforation of a diverticular abscess.

Q2) A 18-year-old man was referred by his GP because of a 3 month history of right sided abdominal pain and passing mucus per rectum associated with a 4 kilogram loss of weight. There was no history of foreign travel or previous medical history. Abdominal examination was unremarkable. He did have a colonoscopy that revealed aphthous ulceration in the right side of the colon. Biopsies revealed non-caseating granulomas.

A2) B. A young man presents with right sided abdominal pain, weight loss and mucus PR should suggest Crohn’s disease or TB. TB is unlikely given that he has no foreign travel and that there are non-caseating granulomas; Caseation is the classic hallmark of TB. Ulcerative colitis usually presents with bloody diarrhoea rather than mucus PR, but it is continuous in presentation from the rectum to more proximally; in this case the ulcers are found in the right colon (transverse, ascending colon and caecum).

Q3) A 44-year-old woman was referred by her GP with 5 month history of loose stools, generalized abdominal pain and bloating. She also complained of decreased appetite, but no weight loss. She had a history of depression for which she was on medication. There was no history of foreign travel. Physical examination was normal. She underwent a colonoscopy which was macroscopically normal.

A3) D. Irritable bowel syndrome or IBS is a diagnosis of exclusion after conditions such as inflammatory bowel disease (Ulcerative colitis and Crohn’s disease), diverticular disease and cancer have been ruled excluded. The fact that her colonoscopy was normal rules out all of those 4 possibilities. Pseudomembranous colitis would give colonoscopic changes: pseudomembranes and inflammation (colitis). TB can sometimes be macroscopically normal, but no history of foreign travel or night sweats or weight loss makes this answer less likely. The symptoms are a bit too long for mesenteric ischaemia especially with no history of AF. Patients with IBS typically may have other diseases with a psychological element to them such as fibromyalgia, depression, and migraine.

Q4) A 76-year-old woman presented to A&E with profuse watery diarrhoea for the past 2 days. She was a resident of a nursing home and was bed-bound. She had recently been treated with Co-Amoxiclav (Augmentin) for a urinary tract infection. She did not complain of any abdominal pain. She had no previous medical history other than a pelvic fracture last year. She had a normal appetite, no chronic change of bowel habit and had not

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A4) F. The most likely diagnosis in this patient is Pseudomembranous colitis due to *Clostridium difficile* infection. This must be excluded in any patient who presents with acute diarrhoea. This is especially likely in a patient who is receiving or has recently received antibiotics where they may have been a change in the composition of the normal bowel flora.

**Gastroenterology SBA 1**

A 48 year old man with a history of ulcerative colitis attends the gastroenterology clinic for his regular review. Over the past few months his bowel symptoms have been well controlled, but he has suffered from itching and fatigue. The following blood test results are ascertained.

- Na⁺ 144 mmol/l
- K⁺ 4.2 mmol/l
- Urea 5.9 mmol/l
- Creatinine 70 μmol/l
- Hb 13.1 g/dl
- WCC 5.1 x10⁹/l
- PLT 278 x10⁹/l

Autoantibody screen:
- Perinuclear anti-neutrophil cytoplasmic antibody (pANCA) positive,
- Anti-nuclear antibody (ANA) positive
- Anti-mitochondrial antibody (AMA) negative
- Bilirubin 65 μmol/l
- ALT 75 U/l
- AST 64 U/l
- ALP 290 U/l
- GGT 300 U/l

Which of the following is the most likely diagnosis?

1. Cholelithiasis
2. Hepatocellular carcinoma
3. Primary sclerosing cholangitis (PSC)
4. Viral cholangitis
5. Primary biliary cirrhosis (PBC)

Ans: 3- Primary sclerosing cholangitis (PSC)

Primary sclerosing cholangitis is a chronic liver disease resulting from inflammation of the bile ducts, which is associated strongly with ulcerative colitis.

The GGT and ALP levels are usually the most elevated of the liver enzymes although rises in the tranaminases (AST and ALT) can occur and bilirubin in more advanced disease. The disease is believed to be autoimmune in nature, hence both anti-nuclear antibody (ANA) and perinuclear anti-neutrophil cytoplasmic antibodies (pANCA) may be positive. Primary biliary cirrhosis is another autoimmune liver disease, in which ANA may be positive, but more typically anti-mitochondrial antibodies (AMA) are also present.

**Haematology EMQ 1**

Peripheral blood film

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A. Howell-Jolly bodies
B. Auer rods
C. Spherocytes
D. Smear cells
E. Heinz bodies
F. Sickle cells
G. Red cell agglutination
H. Atypical lymphocytes
I. Hypersegmented neutrophils
J. Red cell fragments

Choose the most relevant and likely blood film abnormality in the following scenarios.

Q1) A 24 year old male with tiredness. His full blood count reveals an anaemia (Hb 9.5 g/dL) and severe thrombocytopenia (platelet count 5x 10^9/L). He reports fevers and headaches in the last 2 days and passing dark brown urine. His creatinine is raised at 150 umol/L. While waiting in the ED, he has a seizure.

A1) J This patient has features that suggest TTP (thrombotic thrombocytopenic purpura), which is a haematological emergency associated with a high mortality due to cardiac and CNS micro-vessel ischaemia resulting from fibrin-rich clots. It is characterized by a pentad - MAHA (micro-angiopathic haemolytic anaemia, characterized by red cell fragmentation and polychromasia), thrombocytopenia, renal impairment, fever, and neurological symptoms. Note that the pentad is not always present and is not necessary for the diagnosis. The differential includes other causes of MAHA, including malignancy, sepsis (meningococcal sepsis needs to be excluded here and the patient empirically treated after blood cultures are taken as an LP would be contraindicated with his low platelet count), malignant hypertension and the haemolytic uraemic syndrome (HUS). Treatment of TTP is with immunosuppression and plasma exchange. Platelets should not be administered.

Q2) A 68 year-old female has an FBC after attending her GP for a recent episode of productive cough. The sample produces an unusually high MCV and MCHC, which corrects on warming. Atypical serology is positive for mycoplasma pneumoniae.

A2) G. The most likely cause of these laboratory abnormalities are red cell agglutination invitro at room temperature, which is caused by a cold agglutinin. This is usually an IgM antibody that cross-reacts to red cell antigens, typically anti-I, at low temperatures, typically <20 deg C. The IgM antibody being a pentamer, is able to crosslink and agglutinate red cells. This antibody is most often caused by infections, including bacterial, eg Mycoplasma pneumoniae and viral e.g Herpes simplex. Mycoplasma causes a seasonal atypical pneumonia, which this patient is likely to have. The cold agglutination often has no effect on the patient, although cold agglutinins can sometimes cause haemolysis, especially if the antibody is active in the cooler peripheries or in cold weather. Cold agglutinins are also associated with lymphoproliferative disorders.

Q3) A man who had an emergency splenectomy after an RTA

A3) A. Howell-Jolly bodies are small blue round red cell RNA inclusions. These are usually removed by the spleen as the cell matures, such that a hypofunctioning or absent spleen leads to persistence of these nuclear remnants. Other features of hyposplenism include a raised platelet count, red cell shape abnormalities and a lymphocytosis. The patient should receive penicillin V prophylaxis and be immunized against encapsulated organisms (e.g Neisseria, Pneumococcus and Haemophilus).

Q4) A 12 year old Caucasian boy with chronic anaemia and a history of neonatal jaundice and who has recently developed episodes of RUQ pain. His sister required a splenectomy at the age of 10.

A4) C The history suggests an inherited anaemia given the long history, neonatal jaundice and the fact that his sister required a splenectomy. The common causes that present with neonatal jaundice include HS and G6PD deficiency. The latter, although associated with Heinz bodies, does not usually require splenectomy and is rarer in the Caucasian population, being more common in the Mediterranean and African population. The

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diagnosis is therefore likely to be HS, in which numerous spherocytes are seen, which appear as hyperdense round red cells without a clear central pale area. He has probably developed pigment gallstones from the increased red cell turnover causing his abdominal pain. One would expect a raised unconjugated bilirubin.

Q5) An 85 year old man presents with lethargy. He has the following results: Hb 5.4 MCV 124 Plt 100 WBC 3.4 Neutrophils 1.3. His vitamin B12 level is low.

A5) This man has megaloblastic anaemia with a pancytopenia secondary to B12 deficiency. Hypersegmented neutrophils are a common feature in B12 or folate deficiency, arising due to abnormal nuclear maturation due to defective DNA synthesis. He should be started on IM hydroxocobalamin replacement. A cause for his B12 deficiency should be sought, the commonest of which will be dietary or malabsorption secondary to pernicious anaemia or small bowel pathology. PA can be diagnosed using anti-intrinsic factor antibodies (specific but not sensitive) and gastric anti-parietal antibodies (sensitive but not specific). A Schilling’s test could also be performed although this is less often done nowadays. Most patients remain on lifelong three monthly B12 replacement.

Haematology EMQ 2

Haematological malignancy

A. Myeloma
B. Acute promyelocytic leukaemia
C. Burkitt lymphoma
D. Follicular lymphoma
E. Chronic lymphocytic leukaemia
F. Chronic myeloid leukaemia
G. Acute lymphoblastic leukaemia
H. Waldenstrom’s macroglobulinaemia
I. Monoclonal gammopathy of unknown significance
J. Acute myeloid leukaemia
K. Myelodysplasia

Q1) A 70 year old presents with lymphadenopathy and splenomegaly and investigations reveal an IgM paraprotein of 40g/L. Hb 10g/L. Creatinine and calcium normal. Skeletal survey shows no bone lesions.

A1) A paraprotein is most often seen in myeloma, although a few other lymphoproliferative disorders can be associated with this. True IgM myeloma is very rare (frequency: IgG>IgA>IgD>IgM). More likely is that this patient has a type of lymphoma (lymphoplasmacytic lymphoma) producing excess IgM. Collectively the syndrome is called Waldenstrom’s macroglobulinaemia, which usually also presents with bone marrow infiltration, splenomegaly and sometimes enlarged lymph nodes, but not lytic bone lesions or hypercalcaemia. The IgM can cause hyperviscosity due to its size.

Q2) A 45 year old man presents with back pain, night sweats, weight loss and a 10cm retroperitoneal mass. He has a markedly raised LDH and his HIV result returns as positive. Histology demonstrates a ‘starry sky’ pattern and most of the cells are in mitosis.

A2) These features suggest Burkitt lymphoma, a highly aggressive and rapidly proliferating mature B cell tumour, hence the high LDH. It has a strong association with HIV, which probably contributes to oncogenic changes in the cell by causing increased B cell proliferation/expansion. It can present with abdominal masses or rapidly enlarging lymphadenopathy. B symptoms are often present.

Q3) A 76 year old man presents with bruising and gingival bleeding and general lethargy. His clotting profile is normal. A blood film shows pancytopenia with immature hypogranular blasts, which stain positively for myeloperoxidase. Occasional Auer rods are seen. Cytogenetics shows t(8;21)

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A3) J. This patient has acute leukaemia with t(8;21) translocation. The presence of Auer rods is pathognomic of acute myeloid leukaemia and myeloperoxidase is expressed by myeloblasts. Acute promyelocytic leukaemia is a subtype of acute myeloid leukaemia, most often presenting with a coagulopathy/DIC picture with prominent bruising/bleeding. The blasts in APML are often hypergranular and it is associated with the t(15;17) translocation causing the PML-RARA fusion protein.

Q4) An elderly man presents with Coomb’s test positive haemolytic anaemia. He has a lymphocytosis of 20 X 10^9/L. A blood film shows small mature lymphocytes, smear cells and spherocytes.

A4) E. The picture is consistent with a lymphoproliferative disorder and the most likely diagnosis is CLL. CLL can be associated in about a 10% of cases with a Coomb’s test positive haemolytic anaemia (hence the spherocytes). Other lymphoproliferative disorders can cause peripheral blood lymphocytosis (e.g. mantle, follicular) but these are much less common than CLL, which is by far the commonest LPD. CLL cells are fragile and easily ‘smudged’ or ‘smeared’ during film preparation. Diagnosis can be confirmed by doing peripheral blood immuno-phenotyping which shows up characteristic pattern of surface markers on the CLL cells. The bone marrow will also invariably be infiltrated with these cells. Lymphadenopathy and splenomegaly may also be present.

Q5) A 75 year old who had chemotherapy for breast cancer 5 years ago has pancytopenia and macrocytosis. Bone marrow examination shows abnormal maturation in all 3 lineages. B12 and folate are normal.

A5) H. The differential for a macrocytosis with pancytopenia includes B12/folate deficiency (normal here), myelodysplasia or aplastic anaemia (the marrow would be hypocellular). This elderly patient has been exposed to cytotoxic drugs 5 years ago and we are told the marrow precursors shows abnormal maturation (termed ‘dysplasia’). The diagnosis is most likely myelodysplasia. Cytogenetics, the percentage of immature blasts and the number of cytopenias are important prognostic factors. Transformation to leukaemia is the main concern here and carries a very poor prognosis. Treatment at this stage will be supportive only with blood/platelet transfusions as needed.

Haematology SBA 1

An 18 year old women has menorrhagia and iron deficiency anaemia. She also has a long history of easy bruising and epistaxis since childhood requiring cautery. She bled excessively after tonsillectomy at age 13. Her mother bruises easily. A coagulation screen shows are normal PT and APTT. Her platelet count is normal. What is the most likely diagnosis?

A. Haemophilia
B. Von Willebrand disease
C. Connective tissue disorder
D. Inherited platelet function defect
E. No significant bleeding disorder

Ans: B. Von Willebrand disease

There is a possible familial tendency to bleed and bruise easily. The nature of bleeding is mucosal, making a platelet problem and von-Willebrand disease more likely than a factor defect/haemophilia. Von willebrand disease, especially type 1, is associated with mild-moderate low levels of VWF and is by far the most common bleeding disorder for which the history is typical. Inherited platelet function defect needs to be excluded if von willebrand studies are normal. Treatment with antifibrinolytics eg Tranexamic acid is helpful in mild cases such as this one around the time of periods. One may also suppress the patient’s menses with oral contraceptive pills if very heavy.

Haematology SBA 2

A 50 year old man is referred with headaches and blurred vision. He has a normocytic anaemia with Hb 10g/dL. Right temporal artery pulse is not palpable. His ESR is 120 mm/s.

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The most important aspect of his management is?

A. Start corticosteroids  
B. Refer to ophthalmologist  
C. Check serum electrophoresis  
D. Skeletal survey  
E. Carotid artery Doppler

Ans: A. Start corticosteroids

This is an emergency- the patient has symptoms and signs of temporal arteritis (also known as PMR, or giant cell arteritis) and needs urgent treatment to reduce the risk of a stroke. One should not delay starting steroids, although it would be important to get a rheumatology and ophthalmology opinion too.