SELF ASSESSMENT QUESTIONS

Hepatic abscess in a diabetic patient

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Answers on p 802.

A 66 year old Trinidadian Asian woman was admitted with a two day history of fever, nausea, and vomiting. Type 2 diabetes had been diagnosed 17 years before and she had extensive microvascular and macrovascular complications. Glycaemic control had been consistently poor (HbA1c readings 13–16%), and she had needed insulin treatment over the preceding two years. She was hypertensive and had a typical diabetic dyslipidaemia. She had retinopathy for which she had received bilateral photocoagulation treatment. She had presumed diabetic nephropathy with proteinuria (previously quantified at 3 g/day) and impaired renal function (serum creatinine 140–160 $\mu\text{mol/l}$). She had a peripheral neuropathy. She had cerebrovascular disease, having previously suffered a transient ischaemic attack, and had been shown to have bilateral carotid stenoses. She had absent foot pulses, so she also had peripheral vascular disease.

On examination she was febrile but had no abdominal signs. Initial chest x ray was normal. White blood cell count was $12.6 \times 10^9/\text{l}$, alanine transaminase 172 IU/l, bilirubin 38 $\mu\text{mol/l}$, alkaline phosphatase 257 IU/l, and albumin 29 g/l. Clotting profile and platelet count were normal. Liver imaging showed a solitary lesion (fig 1) from which pus was aspirated, and also gallstones. Aspiration of the hepatic lesion was complicated by haemorrhage, requiring resuscitation and laparotomy to achieve haemostasis. The period of hypotension resulted in acute oliguric renal failure for which the patient required haemodialysis before spontaneous recovery of renal function. Culture of both liver aspirate and blood grew *Klebsiella pneumoniae*, and intravenous antibiotics were given according to sensitivities.

Figure 2 Computed tomography of the chest showing multiple areas of consolidation in both lung fields.

The patient developed progressive dyspnoea, persistent fever, and bilateral pleural effusions on chest x ray. Computed tomography of the chest showed numerous small areas of consolidation throughout both lung fields (fig 2). Despite continued treatment with appropriate antibiotics, she suffered several respiratory arrests, from which she was successfully resuscitated. Fluid balance was complicated by limited cardiac reserve (demonstrated by echocardiography) as well as by impaired renal function.

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Figure 1 Computed tomography of the abdomen showing a large solitary lesion in the right lobe of the liver.

Figure 3 Computed tomography of the brain showing an area of low attenuation in the right parietal region.

With continued antibiotic treatment, she made a slow recovery. Despite clinical improvement, she developed an acute left sided pyramidal weakness. Computed tomography of the brain showed an area of low attenuation in the right parietal region (fig 3). Her neurological signs improved over the ensuing few weeks. Her respiratory function improved, and repeated imaging showed resolution of both hepatic and lung lesions. She subsequently left hospital, fully mobile and

independent, and has remained well since discharge.

Questions

- (1) How does this woman's diabetes relate to her current infective illness?
- (2) What was the probable source of her *Klebsiella pneumoniae* septicaemia?
- (3) What was the cause of her left pyramidal deficit?

Broad complex tachycardia: a diagnostic dilemma

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Answers on p 803.

A 56 year old woman was admitted to hospital with an hour long history of palpitations. She had suffered palpitations on three occasions over the preceding 12 months, each lasting for approximately half an hour. During these episodes she felt light headed but had not lost consciousness. Past medical history was unremarkable and she was taking no drugs.

On admission to hospital her symptoms had settled spontaneously and clinical examination was normal. A 12 lead ECG showed sinus rhythm and no other abnormality. Baseline blood tests, cardiac enzymes, and thyroid

function tests were normal. She remained in sinus rhythm over the subsequent 24 hours and Holter monitoring was arranged as an outpatient. However, just before her discharge her symptoms returned and the heart rate was 160 beats/min and blood pressure 90/70. A 12 lead ECG was recorded which is shown in fig 1.

Questions

- (1) What is the diagnosis?
- (2) What is the most important differential diagnosis?
- (3) How would you treat this condition?

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Figure 1 ECG record during tachycardia.