Emergency 15.2: Sickle cell crisis

Pain crisis

Give adequate analgesia (e.g. parenteral morphine) as soon as the patient confirms they have sickle cell disease and are in pain

Clinical examination of the chest, cardiovascular system, abdomen and nervous system

Measure temperature, blood pressure, pulse and respiratory rate

Use pulse oximetry to measure oxygen saturation

Blood samples for FBC, urea and electrolytes, blood culture and blood grouping

Chest X-ray if pain is in the chest. Otherwise, do not X-ray painful bones at the outset of the crisis

Ensure airway and give 24% oxygen at 4 l/min by mask

Give 1 l fluid 6-hourly, by mouth if possible, intravenously if not (vascular access may be difficult)

Give broad-spectrum antibiotics if there is fever (more than 37.5°C)

Overwhelming infection caused by hyposplenism

Pneumococcal, meningococcal or haemophilus septicaemia

Peak risk in childhood

May present with shock, seizures, meningeal irritation, coma or severe diarrhoea

Key is to recognize it and start immediate intravenous broad-spectrum antibiotic

Acute splenic sequestration

Peak risk in childhood

Presents with signs of rapidly developing anaemia (change in mental state, sleepiness, breathlessness)

Key finding is a rapidly enlarging spleen

Volume support with crystalloid and red cell transfusion

Surgery and blood transfusion in sickle cell disease

Never plan or carry out surgery, or give a blood transfusion, in a sickle cell patient without haematological advice