KISS: Myeloma

Based on BJGP2018;e586 & NICE 2018, NG35 & NICE-CKS 2016

- ***Just remind me…***
  - **Myeloma** is caused by a proliferation of monoclonal plasma cells in the bone marrow which secrete immunoglobulins, known as M proteins or paraproteins
  - These paraproteins increase plasma viscosity and cause renal damage, and the proliferation of plasma cells leads to bone marrow suppression and can cause hypercalcaemia
  - The median age of diagnosis is 70; only 15% of patients are aged under 60
  - The typical features of myeloma give rise to symptoms of fatigue, bone and MSK pains, headache, nausea, recurrent infections etc
  - Patients often present late with hypercalcaemia, pathological fractures or renal failure
  - Prognosis is variable, with survival times varying from a few weeks to 20 years; most respond to initial treatment and have a period of stability before relapse after 2 to 5 years; younger fitter patients who have high dose therapy and stem cell transplantation can expect to survive for a median of 7 years
  - **MGUS** = **monoclonal gammopathy of uncertain significance**
    - MGUS is a non-malignant condition with an abnormal paraprotein or M-protein
    - It is usually an asymptomatic, chance finding and once myeloma has been ruled out treatment is not necessary, however, patients have a chance of progression to myeloma or lymphoma at a rate of 1% per year with a latent period of up to 20 years
- ***Diagnosis in primary care***
  - Consider possible myeloma in adults (especially aged over 60) presenting with non-specific symptoms e.g. fatigue, bone pain, recurrent infection, headaches etc.
  - Check FBC, ESR, renal function and calcium studies in all patients
  - A normal FBC and ESR is sufficient to rule out the disease in most patients presenting in primary care with non-specific symptoms
  - ESR is a better 'rule out' inflammatory marker for myeloma than CRP
  - If FBC, ESR, creatinine, or calcium are abnormal or if the index of suspicion is higher arrange urgent serum electrophoresis and Bence-Jones protein urine assessment
  - Serum electrophoresis and Bence-Jones protein are negative in 2% of people who have a non-secretory form of the disease, so refer if significant clinical suspicion persists
  - Arrange XRays of symptomatic areas of bone pain to exclude pathological fracture
  - Arrange urgent admission if significant hypercalcaemia or acute kidney injury
  - If serum and/or urine protein electrophoresis suggest myeloma urgent haematology referral
- ***Secondary care management***
  - Diagnostic confirmation is via further blood tests, bone marrow aspirate and biopsy and skeletal MRI
  - Secondary care management depends on disease stage, prognosis and co-morbidities but may include bisphosphonates, corticosteroids, chemotherapy and immune-modulating drugs
  - High dose chemotherapy and stem cell transplant may be offered in younger, fitter patients
- ***Primary care management***
  - On-going **support and holistic care**, including lifestyle advice e.g. maintaining good hydration status
  - Identification and prompt investigation of **possible new complications**, including: pathological fractures, spinal cord compression, impaired immunity, anaemia, bleeding disorders, acute kidney injury, cognitive impairment and stroke due to hyperviscosity
  - **Prompt treatment of infections** with broad-spectrum antibiotics
  - **Vaccination**, seasonal influenza and also pneumococcal
  - **Pain contro**l (avoid NSAIDs due to renal risk)
  - Management of **depression and anxiety**
  - **Supportive and palliative care**