

ELDERLY MEDICINE

ONCOLOGICAL EMERGENCIES

Tumour Lysis Syndrome

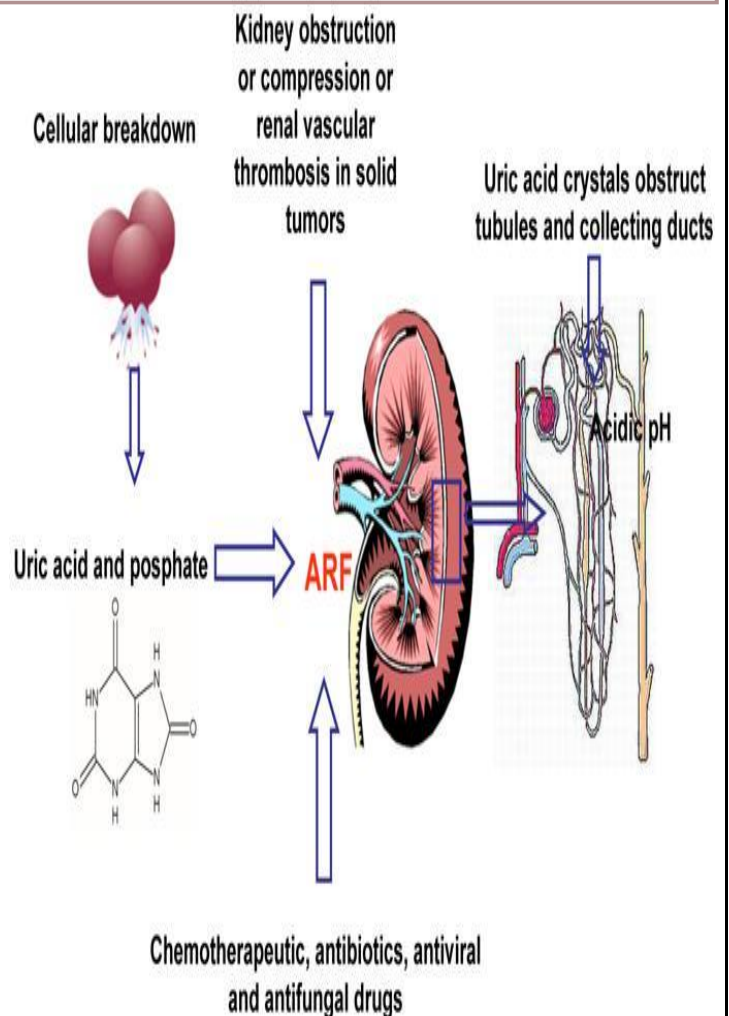
- TLS is a group of metabolic disorders that occur as a complication of chemotherapy
- Caused by large numbers of tumour cells being lysed at the same time by the chemotherapy agent
- This leads to large amounts of intracellular substances being released into the plasma, this leads to;
 - **Hyperkalaemia**- K^+ being a major intracellular ion
Usual features are cardiac arrhythmias and muscle weakness
 - **Hyperphosphataemia**- major intracellular ion
Causes acute kidney injury due to deposition of calcium phosphate crystals in kidneys
 - **Hypercalcaemia**- due to binding with phosphate
Symptoms include- tetany, perioral/ peripheral paraesthesia, arrhythmias
 - **Hyperuricaemia**- massive release of nucleic acids from dead cells, these are converted to uric acids and in high enough amounts crystallise in the kidneys
- This usually occurs in malignancies with high cell turnover and high tumour bulk e.g. lymphomas and leukaemias, especially Burkitt's and Non- Hodgkin Lymphomas and AML/ ALL.
- It should be suspected in any patient having a malignancy or chemotherapy and acute renal failure with either hyperphosphataemia or hyperuricaemia

Leukostasis

- Extreme leucocytosis- often with WCC $>100 \times 10^9/L$
- High risk of end organ damage e.g. stroke/ bowel ischaemia
- May present acutely dyspnoeic due to ARDS (pulmonary infiltration seen on CXR)
- Treatment requires emergency chemotherapy
- Subsequent risk of tumour lysis syndrome

Neutropaenic sepsis

- **Most often occurs as a complication of chemotherapy**
- Usually diagnosed in patients with **neutrophil count $<0.5 \times 10^9/L$ & evidence of infection**
- Management includes **IV antibiotics +/-** gram cell stimulating factor (**GCSF**)
- Patients will need a side room to limit the risk of further infection



Syndrome of Inappropriate Antidiuretic Hormone secretion

- SIADH is caused by excessive release of antidiuretic hormone
- The most common oncological cause is small cell lung cancer
- ADH is secreted to increase the amount of water reabsorbed by the kidneys
- But it doesn't cause solute reabsorption
- When released by inappropriate sources there is no negative feedback, effectively diluting the plasma causing hyponatraemia

Symptoms of hyponatraemia include weakness, nausea, confusion, seizures and coma

Treatment includes treatment of the underlying cause, fluid restriction, diuretics

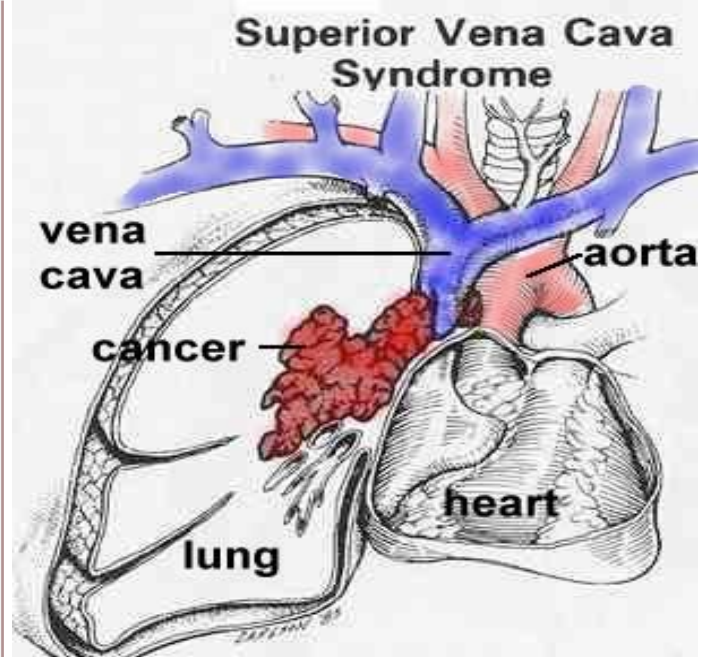
Superior Vena Cava Obstruction

More than 90% of cases are caused by cancers- most often bronchogenic carcinomas causing compression

Symptoms are as a result of inability of the SVC to drain the upper half of the body, including

- Facial swelling
- Venous distension of the neck/ upper limbs
- Dyspnoea
- Headache

Management includes corticosteroids +/- diuretics +/- endovascular stent by interventional radiology



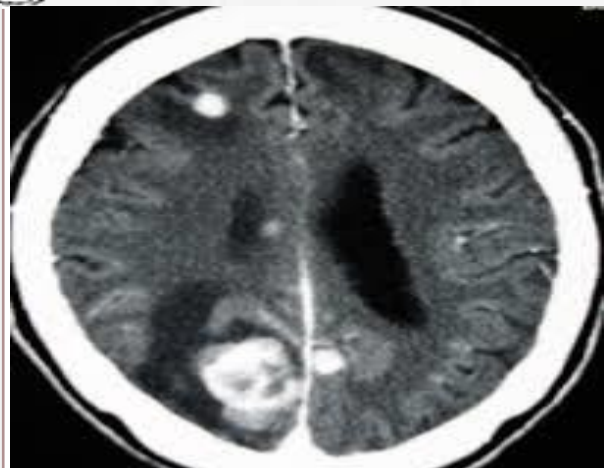
Raised intracranial pressure

Caused by an intracranial primary or secondary metastases

Patient may present with headache or nausea/ vomiting
May also present with seizures or coma

Urgent CT brain may demonstrate evidence of raised ICP

Management is initially with high doses of corticosteroids



For information on cauda equina syndrome see musculoskeletal week.