MANAGEMENT OF SUPERIOR VENA CAVA OBSTRUCTION (SVCO)

SVCO is an obstructive emergency that may occur as the result of progression of a malignancy or may be the diagnostic symptom. SVCO is caused by external pressure, thrombus or direct tumour invasion causing obstruction of the superior vena cava and occurs in 3-8% of patients with cancer.

Initial Assessment

**Observations:** Temperature, pulse, blood pressure, respiration rate, O2 saturation. Early warning score.

**Investigations:** Urgent full blood count, U&E, coagulation screen. CXR, CT Thorax

**Signs and Symptoms:** Dyspnoea, stridor, due to laryngeal oedema, dilated anterior chest wall veins, swelling of face and neck, non-pulsatile JVP, chest pain, headaches, coma, confusion

**Questions:**
- Cancer diagnosis/primary disease - new cancer diagnosis
- Differential diagnosis: chest infection, pulmonary embolism (PE), disease progression (i.e. consolidation / pleural effusion); ascending aortic aneurysm (due to indwelling intravascular catheter)

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<td>Oedema in head or neck (vascular distension) cyanosis; plethora</td>
<td>Oedema in head or neck with functional impairment (mild dysphagia, cough, visual disturbances)</td>
<td>Mild or moderate cerebral oedema (headache, dizziness) or mild/moderate laryngeal oedema or diminished cardiac reserve (syncope after bending)</td>
<td>Significant cerebral oedema (confusion) or significant laryngeal oedema (stridor) or significant haemodynamic compromise</td>
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Enquire if history of underlying chest complaints e.g. asthma, COPD – advise patients around usual management of exacerbations advise to discuss with GP or other associated health professional managing this condition.

Advise to contact the chemotherapy helpline if symptoms persist or worsen or if they develop any other problems/toxicities

Consider hospital admission if clinically indicated – inform acute oncology team

If patient does not require hospital admission consider urgent oncology clinic appointment

Admit if evidence of:
- Haemodynamic compromise
- Desaturation
- Infection
- Other chemotherapy toxicities

If the patient has stridor contact the ENT team

Seek specialist oncological advice

SVCO may be associated or caused by a thrombosis, therefore check if a central venous catheter is in place. Consider anti-coagulation

Nurse patient in upright position

Administer oxygen therapy, consider Heliox (helium/oxygen mix) for patients with marked stridor as this is easier to breathe.

Avoid giving intravenous fluids through the affected arm/arms.

Commence steroids, intravenous initially dexamethasone 8mg twice daily, switching to oral depending on clinical situation,

Ongoing Management

Refer to acute oncology team

The treatment of choice is insertion of a stent into the occluded section of the vein, often with immediate improvement in symptoms. Discuss this option with the vascular surgical registrar and vascular radiologist (according to local service agreements). Radiotherapy may be required following this.

If radiotherapy is considered contact the Clinical Oncology Registrar On-call for advice

Some patients may be given chemotherapy, for example lymphoma and small cell lung cancers. Discuss this with the appropriate teams at The Christie NHS Trust.