Topic: SUPERIOR VENA CAVA (SVC)

Superior vena cava (svc) is a large vein that collects the blood from the upper half of the body & drains it into right atrium

DIMENSION - 7 cm × 1.25 cm

LOCATION – Lies in superior & middle mediastinum

COURSE

Formed by – union of the right & left brachiocephalic or innominate veins

at the lower border of the right first costal cartilage

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Descends – vertically downward behind the 1st and 2nd intercostal spaces

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Pierces – the Pericardium at the level of 2nd costal cartilage &

↓

Terminates – into upper part of right atrium behind the 3rd right costal cartilage

RELATIONS

1.Anterior 🡪 (i)Chest wall (1st and 2nd intercostal spaces,2nd and 3rd costal cartilage)

(ii) Anterior margin of the right lung & pleura

(iii) In the lower half, SVC is covered by pericardium

(iv)Right internal thoracic vessels

2.Posterior 🡪 (i) Trachea & Right verges nerve(posteromedial)

(ii) Right lung & pleura (Posterolateral)

(iii)Right Pulmonary hilum (Posterior to lower half of svc)

3.To the Right 🡪 (i)Right phrenic Nerve

(ii)Right Pleura & lung

4.To the Left 🡪 (i) Ascending Aorta

(ii) Brachiocephalic trunk

TRIBUTARIES

1. Formative Tributaries 🡪 Right & Left brachiocephalic veins

2. Azygos vein 🡪 arches over root of Right lung & opens into SVC

3. Mediastinal & Pericardial veins 🡪 Several small veins that drain into SVC

SAQ Obstruction of superior vena cava

Clinical Anatomy

Obstruction of superior vena cava

-can occur because of cancer of lungs or enlargement of mediastinal lymph nodes

1.SVC Obstruction above the opening of svc

Venous Blood from upper half of body ---> returned through azygous vein ---> superficial veins are dilated on chest upto costal margin.

2. SVC obstruction below the opening of svc

Venous Blood from upper half of body ---> returned through inferior vena cava superficial veins are dilated on chest & abdomen upto saphenous opening in thigh.