

Varicose Veins – Djeric – 30-09-03

VARICOSE VEINS (Essential Surgery 3rd Ed. Pp 484 onwards)

Varicose veins are dilated, tortuous and visible superficial veins of the lower limb. They occur in about 20% of people aged 20, and increase up to 80% in people aged > 60. Only about 12% of these patients experience any symptoms of varicose veins.

PATHOPHYSIOLOGY OF VARICOSE VEINS

Varicose veins develop because of abnormal communication between the superficial & deep veins. There is a failure of the sapheno-femoral valve, thus there is an column of blood from the heart to the lower limbs that is uninterrupted. This causes progressive dilatation of the veins in the leg. The long saphenous vein is involved in about 90% of cases, and short saphenous system in 25% of cases.

As the veins dilate, there is peripheral pitting oedema of the leg. As blood is not being returned to the heart, there is stagnation of blood and this causes breakdown of the blood cells → causing haemosiderin deposits, resulting in pigmentation. You can also get thrombus formation due to stagnation of blood. As the pressure increases, you have dilatation of small superficial venules producing venous stars. Eventually, you get tissue ischaemia due to blood back up, and you get necrosis. This causes superficial ulceration of the skin (medial side affected more). As necrosis persists, fibrosis occurs post inflammation and you get contraction of this tissue, making the leg thinner and harder in the subcutaneous areas. This is called lipodermatosclerosis.

GROUPS OF VARICOSE VEINS

Varicose veins can be caused because of pregnancy (i.e.: progesterone causes changes in the structure of collagen and smooth muscle relaxation, enlarged uterus may impeded flow to heart due to pressure on pelvic veins), congenital (lack of valves in iliacs etc) or DVT problems. Women are 6 times more affected than men are.

SYMPTOMS AND SIGNS OF VARICOSE VEINS

- Dilatation: irritates the nerves and therefore causes pain (i.e.: “I get pain during the night, after I work” – due to standing all day)
- Cosmetic appearance: poor
- Varicose ulcers: poor cosmetic appearance
- Varicose eczema: this is an inflammatory condition confined to the epithelial region, redness, itching.
- Oedema: due to build up of blood – therefore disturbing the normal hydrostatic, oncotic pressure relationships.

MANAGEMENT OF VARICOSE VEINS

Surgery is often not required for people suffering from varicose veins. Management techniques are usually for the aching pain, haemorrhage from varicose veins, superficial thrombophlebitis, or varicose skin changes (ulcers, eczema etc). These can be treated with compression stockings to increase the venous return.

Injection sclerotherapy (e.g.: Fegan technique) is used to small varicosities, but unsuitable for large ones.