mercredi 9 décembre 2009

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Here is the summary of my contribution:

Reflux.

Reflux can be misunderstood and source of confusion if not related to a common definition.

We propose : reflux =venous flow opposite to the valve direction independently of its origin, destination and flow component.
Any flow, whatever its direction results from a pressure gradient.. The gradient pressure inversion is physiological when the proximal pressure increases ( cough, defecation, heavy weight bearing, Valsalva manoeuver) or the distal pressure decreases ( diastolic phase of the muscular pump, particularly the calf pump). The flow reverses when the valves are not capable to stop it (valve absence or incompetence) 1,2,4,5 . It is always a reflux at its start point but it can feed an antegrade flow. 2 examples: the pelvis escape (start) points are refluxing while they feed in orthograde (antegrade) direction the upper tributaries of the GSV arch and a femoro-popliteal obstruction can be by-passed ( open vicarious shunt) by a calf refluxing perforator that feed an orthograde GSV flow.

The reflux time in deep veins is normal when it is not longer than 10OO ms in the deep veins (N1) and less than 500 ms in the superficial veins ( N2,N3). 7

The value of the deep pathological reflux can be rated according to the valves damages and position. Total when the all the overlying and underlying valves are incompetent, segmental when the upper valves are competent and partial when the valve leak is small. Some indexes can assess these different features of reflux.8

The superficial veins refluxes can be defined according to the pressure gradient that triggers them (Valsava manoeuver, muscular pump systole or diastole), their escape points, their pathways ( saphenous trunks N2 and or tributaries N3) and their re-entry points towards N1. They can be classified according theses parameters in various types of shunts. 9,10,11

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