CAN WE PREDICT AND AVOID THE EVOLUTION OF CHRONIC VENOUS DISEASE?

Armando Mansilha MD, PhD, FEBVS

epidemiology

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disclosures

• nothing to declare

can we predict and avoid the evolution of CVD?

THE EDINBURGH VEIN STUDY – CVD PROGRESSION

how do varicose veins develop? – biomechanical forces

Veins are exposed to various biomechanical forces

1. Flowing blood
2. Intra and extra-luminal pressure
3. Longitudinal tensile load

how do varicose veins develop? – biomechanical forces

**STABILIZE** the architecture of the vessel wall

**STIMULATE MAL-ADAPTATIVE** remodelling processes

Well accepted that **VALVULAR REFLUX** is the predominant determinant of both CVI and VV

ONGOING DISCUSSION:
- Valve dysfunction **INITIATES** these venous diseases
- Valve dysfunction is **SECONDARY** to venous remodelling

how do varicose veins develop? – cellular and molecular influence

**leukocyte-endothelium interaction**

**dysregulated apoptosis**

**FGF - role in VV/CVI**


Bharath V, Blood, 2014


Broacht V, Blood, 2014
is there a benefit for early intervention?

- CVD progresses in >50% of the patients
- There are known risk factors for progression
- Expensive and burdensome pathology, with high economic costs and impact in the quality of life

Nonetheless...

- Still difficult to predict which patients will aggravate
- Still difficult to predict how fast it will aggravate

take-home messages

- taking in account the current demographic characteristics of the Western World, with an ageing population and an ongoing obesity epidemic, it is predictable that the prevalence of CVD will rise
- highlight the leucocyte-endothelium interaction as a key role on the pathophysiology of primary CVD
- more long-term follow-up studies are needed to establish how to predict the risk of progression to more advanced stages (CVI)

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