

NATURAL HISTORY

Intermittent Claudication

BASLE STUDY: at 5 yrs 2/3 resolve but 2/3 have angiographic progression of disease

CASS: PAD carries 25% greater mortality than non-PAD

Overall: 50% stable, 25% impaired walking distance, 25% major revasc, 1-2% amputation

Critical Limb Ischaemia

VSGBI 1993 survey: 70% regress, 75% chance of limb salvage, 21.5% amputation, 13.7% mortality

RISK FACTORS and secondary prevention

FIXED: AGE (increases)/GENDER (Framingham: men, Limburg: women, EAS: ESI)/RACE (black)/FHx

MODIFIABLE: smoking/diabetes/BP/lipids

SMOKING: Increases PAD incidence/progression to CLI/major revasc/amputation/mortalityx3

Cessation reduces overall CV risk to non-smoker in 5-7 years (men)/2-4yrs(women)

DIABETES: diffuse and distal disease; both arterial and neuropathic ulcers

UKPDS: 1% increase HBA1C = 28% increased PAD risk;

EAS: 1.5x risk of symptomatic PAD, 2.5x risk of asymptomatic PAD, 10-16x amputation rate

BLOOD PRESSURE: Rotterdam study showed 10mmHg increments incrementally increased PAD risk

AIM: 140/85 (first-line ACEi/AT2RA/CaCHBs)

SERUM LIPIDS

Framingham: fasting cholesterol >7 doubles risk of IC

AIM: <2.6 mmol/L

STATINs (a) reduce CV risk (1mmol/l LDL drop lowers risk 1/3) (b)Functional improvement (painfree walking; Cochrane review)

MEDICAL MANAGEMENT

NICE 2012: smoking cessation /lipids/diabetes/hypertension | |exercise| |diet and weight loss| |antiplatelet therapy

EXERCISE

Increase collaterals/enhanced NO vasodilatation/improved muscle bioenergetics/weight loss

CLEVER: increases walking distance than angio/stenting if combined with optimal medical management.

NICE: offer to all with IC

DRUGS

1.Risk factor modification: antihypertensives/statins/diabetes

2.Other: antiplatelets

3.Vasoactives: Cilostazol, naftidifuryl, pentoxifylline all equivalently increase WD in IC by 60% vs anti-platelets

NICE 2012: NAFT only if SEP fails but not for intervention; review in 3-6mths and stop (SVS doesn't recommended these)

4.Prostaglandins (PGE1/PGE2) vasodilator/antiplatelet/optimize VEC function

Iloprost used in Buerger's; CLI (improves pain, ulcer healing, amputation rate reduced 55%, mortality reduced 35%)

SEs: headache, flush, nausea, hypotension

OTHER

Spinal cord stimulation: not recommended by NICE; L3-4 stim (gate theory) reduces pain (warm limb/paraesthesia);

unreconstructable PAD

Lumbar sympathectomy: not recommended; rest pain in unreconstructable occlusive disease

IPC: reducing venous pressure so popliteal artery flow increases; reduced pain and increased WD in small study