Effects of supervised exercise on reticulated reactive platelets and erythrocyte fragments in patients with peripheral atherosclerosis

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Physical training:
- Enhances functional status
- Reduces platelets activation
- Improves rehology

Physical training benefits:
- Large RDW is related with CHD and is due to presence of red cells fragments (FRC <1%),
- FRC increase with inflammation and oxidation – CV risk
- Young reticulated platelets (IPF) are more reactive
- Increased expression of GP IIb/IIIa receptors
- Increased ADP-aggregation
- Reduced inhibition with PGI
- Increased content of alfa-granules (nv 2.6)
The aim was to evaluate in PAD patients the effect of controlled training on IPF and FRC at rest and after maximal treadmill test.

- **12 PAD patients** (claudication, stage II class. Fontaine)
- **15 days of training**: 30 minutes of aerobic exercises, 30 min of treadmill walking until pain onset with restart after recovery (slope and speed determined with claudication test - namely 3.2 km/h, 10%), 20 minutes of free bike.

- **IPF (MPV, PLT) - FRC**
  - Rest, 1 hour and 24 hours after treadmill test

- **D-0**
- **D-16**
  - Maximum walking distance (MWT)
  - Hs-PCR
  - malondialdehyde
In conclusion: we hypothesize that training, improving oxidation, inflammation and endothelium function, causes reduction of platelets activation (IPF) and FRC count.