Increased platelet reactivity during acute exacerbations of Chronic Obstructive Pulmonary Disease, irrespective of antiplatelet therapy

POSTER PRESENTATION

BACKGROUND

A higher risk of cardiovascular (CV) events during acute exacerbations of chronic obstructive pulmonary disease (AECOPD) has been described. The importance of increased platelet reactivity during AECOPD and whether antiplatelet therapy (APT) plays a role is not fully elucidated.

AIM

To evaluate whether platelet reactivity is augmented during an AECOPD compared with the stable state.

METHODS

A prospective ex vivo investigation with paired data was conducted in consecutive patients with a moderate or severe AECOPD. Platelet function was assessed at two time points: 1) Acute exacerbation (at first consultation); and 2) Stable state. APT for any CV condition was allowed in the study. Platelet function tests (PFT) included: a) Vasodilator-stimulating phosphoprotein (VASP) assay (primary endpoint), expressed as P2Y12 reactivity index; b) Multiple electrode aggregometry; and c) Optical aggregometry.

RESULTS

Thirty-seven patients were included in the present analysis (8 on aspirin and 2 on clopidogrel). Greater platelet reactivity was observed with VASP during AECOPD in the overall sample (75.2±1.9% vs. 68.8±2.4%, p=0.001) and irrespective of receiving APT or not (no APT: 76.0±1.5% vs. 71.2±2.0%, p=0.007; APT: 72.8±3.1% vs. 61.7±7.5%, p=0.071). Consistent findings were observed with all other PFT used.

CONCLUSIONS

Increased platelet reactivity is observed during an AECOPD, which may contribute to the increased CV risk of these patients.