SUSTAINED ASPIRIN EFFECTS ON PLATELETS FUNCTION OVER 24 HOURS IN PATIENTS WITH UNTREATED OBSTRUCTIVE SLEEP APNOEA SYNDROME (OSAS)

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Introduction
Prevalence of OSAS in people with cardiovascular disease is much higher than in the general population. Many OSAS patients are prescribed Aspirin for secondary prevention of cardiovascular events but the effects of morning Aspirin might be attenuated by night of recurrent apnoeas and intermittent hypoxia. Therefore evening dosing might be more appropriate.

Aim
To assess platelets function in the afternoon and immediately post-sleep in untreated OSAS subjects who are on long term once daily 75mg Aspirin (am).

Methods
11 subjects with newly diagnosed and untreated severe OSAS prescribed Aspirin by their physicians: 10 males, (mean ± SD) BMI 40.8 ± 7.2 kg/m², age 60.8 ± 10.02 years, 4% Desaturation rate (4% DR) 58.4 ± 40.8 events/hour.

Platelet aggregation was induced in vitro by collagen (COL), adenosine-diphoshate (ADP), and arachidonic acid (ASPI). Platelet activation was measured by multiple electrode platelet aggregometry (Multiplate®). Blood samples were collected at 4pm then 7.30am the following morning, prior to the Aspirin dose.

Results
Platelet aggregation in response to ASPI was reduced in the presence of Aspirin as expected and the effects were the same in the afternoon (38.6 ± 44.4 units) versus morning (39.2 ± 36.2 units).

There was no difference between afternoon and morning platelet function (p > 0.05 for all measures of platelet aggregation using three agonists) (Figure 1).

Conclusions
75 mg of once daily (morning) Aspirin was sufficient to block in vitro platelet aggregation in untreated severe OSAS over a 24 hour period and was not influenced by recurrent apnoeas occurring just prior to blood sampling.

REFERENCES

Abstract P257 Figure 1. Platelets aggregation in vitro in response to agonists stimulation: collagen (COL), adenosine-diphosphate (ADP), and arachidonic acid (ASPI) in subjects with severe OSAS on regular morning Aspirin. Results are presented as mean ± SEM.

A194

Poster sessions

P257
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10.1136/thoraxjnl-2013-204457.409

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