**Turbidimetry measurements of plasma clots from healthy males and males with cardiovascular disease on low or medium dose aspirin**

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**Background.** Cardiovascular disease may correlate with altered clot structure. Turbidimetry is a photospectroscopic method that may be used observe the formation and lysis of fibrin networks, and it may also be used to determine structural properties, such as fiber diameter and fiber internal packing, of fibrin networks.

**Objectives.** Use turbidimetry to observe clot formation and lysis, and to determine structural properties of plasma clots from healthy younger and healthy older males, and older males with cardiovascular disease (CVD) who took low to medium dose aspirin.

**Methods.** Blood plasma was obtained from five males in each group. Turbidity at \(\lambda = 405\) nm was used to determine the rate of polymerization (slope of turbidity increase), maximum absorption and lysis time. Turbidity measurements as a function of wavelength (\(\lambda = 500 - 800\) nm) were used to determine fibrin fiber diameter and fibrin fiber packing.

**Results.** Good turbidimetry curves were obtained for all samples. The data are currently still being analyzed, and the fibrinogen concentration of each sample, which is needed for the analysis, is currently determined with an ELISA assay. The complete analysis will be presented at the workshop.

We also observed that pipetting the sample three or more times to mix in thrombin severely disturbs fibrin polymerization.

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