

ARIC MANUSCRIPT PROPOSAL FORM

Manuscript #100

1. Title:

Platelet and Coagulation Activation and atherosclerosis

2. Writing Group:

(lead) Wu/Conlan, Folsom, Heiss, Davis (others?)

3. Timeline:

Uncertain, depending on several factors: (1) availability of case-control assignments from CC. (2) Data analysis.

4. Rationale:

Platelets play a major role in atherogenesis. Both platelets and coagulation contribute to arterial thromboembolism. Activation of platelets is accompanied by release of betaTG and PF-4 from alpha granules. Coagulation activation results in elevated peptide such as fibrinopeptide A (FPA), F₁₊₂ fragments, etc. Clinical studies regarding the association of FPA and platelet- activation products with atherosclerosis are inconclusive. The ARIC cases and controls will be valuable for delineating the association.

5. Main Hypothesis:

The levels of platelet-specific proteins and coagulation activation peptides are associated with atherosclerosis.

6. Data Request:

Cases and controls will be identified by ultrasound reading center and code numbers for cases and controls will be sent to hemostasis laboratory by CC. The personnel at hemostasis will be blind with respect to cases and controls. BetaTG, PF-4 and FPA will be measured by RIA or ELISA. Data will be transmitted to CC. Data needed include characteristics of cases and controls and their betaTG, PF-4 and FPA values.