ARIC MANUSCRIPT PROPOSAL FORM

Manuscript #205

1. Title (length 26):
Fibrinolysis Correlates

2. Writing Group (list individual with lead responsibility first):
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3. Timeline:
Analysis - through Summer 1993
Draft - Winter 1994

4. Rationale:
Fibrinolytic factors (tPA, PAI-1) and platelet activation and aggregation are determinants of hemostasis and as such may have a role in cardiovascular disease. It would therefore be important to identify their physiologic and lifestyle correlates. Fibrinolytic factors (tPA, PAI-1, D-dimer) and measures of platelet activation (PF4, beta-TG) have been measured in approximately 900 visit 1 participants (459 case-control pairs). The main analyses of this data set, which involve carotid wall thickness, are summarized in MS #099 and #100; none of which overlaps with this proposal. MS #138 (Lp[a] and fibrinolytic activity) focuses on the relation of Lp[a] to fibrinolytic factors and effect-modifiers of such an association, if found. To avoid overlap with MS #138, we will not include Lp[a] among the tested correlates. To avoid overlap with MS #136, we will not include insulin and triglycerides in this analysis.

5. Main Hypothesis:
The general hypothesis is that a better lifestyle and a more favorable physiologic profile are associated with:
1) increased fibrinolysis (higher levels of D-dimer and lower levels of tPA antigen and PAI-1 antigen); and 2) decreased platelet activity (lower PF4 and beta-TG).

6. Data (variables, time window, source, inclusions/exclusions):
Dependent variables: tPA, PAI-1, D-dimer, PF4, beta-TG
Independent variables: age, sex, race, body mass, waist/hip ratio, SES indicator, diet (foods, nutrients), physical activity, smoking, alcohol drinking, diabetes, hypertension, coagulation factors, lipids (excluding Lp[a]), menopausal status, female hormone use, and family history of CVD. The analysis will take into account the issue of over-representation of atherosclerosis cases in the sample (by stratification on case-control status and/or weighing).