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AGE-RELATED MACULAR DEGENERATION (AMD) AND CARDIOVASCULAR DISEASE

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Purpose: Age-related macular degeneration (AMD) is a common cause of legal blindness, and coronary artery disease (CAD) is the leading cause of death. Association between CAD and AMD has been researched with inconsistent conclusions. Advances in retinal imaging indicate that Reticular Macular Disease (RMD) is far more prevalent than previously realized. RMD is associated with decreased longevity, for reasons yet undetermined. We therefore propose to study RMD to look for a link to CAD, and its risk factors. **Methods:** 1-year recruitment, with complete eye examination, SD-OCT and autofluorescence imaging. Cases will be 100 individuals (AMD+ RMD+) and 100 controls. Cardiac disease will be evaluated as: history of myocardial infarction, angina, positive stress test, cardiac catheterization, or stent. Cardiac risk factors will include tobacco use, hypertension, elevated total cholesterol, HDL cholesterol, triglycerides and LDL. Testing for serum lipids and inflammatory biomarker hs-CRP implicated in AMD and CAD. Genetic analysis for the two main risk alleles for AMD, CFH and ARMS2 genes will be performed. **Expected Results:** AMD/RMD+ will have a higher rate of CAD compared with AMD/RMD- cases. In addition, AMD/RMD+ will have a higher rate of abnormal inflammatory markers, CAD risk factors and genetic abnormalities compared with AMD/RMD-. **Conclusions:** The association between CAD and AMD has not yet been proven. We expect this study can elucidate the relationship between these two entities. **Financial Disclosure:** "Funding for this research was supported by the Global Ophthalmology Awards Program (GOAP), a Bayer-sponsored initiative committed to supporting ophthalmic research across the world".