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AMERICAN ACADEMY OF PEDIATRICS

SECTION ON CARDIOLOGY

28th Annual Meeting

Washington, D.C. * October 31 - November 2, 1986

INSTRUCTIONS: See accompanying sheet. Must be followed exactly.

☐ I wish to be considered for Young Investigator Award (see instructions)

MAIL TO:

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YOUR RETURN ADDRESS:

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[XX] Academy Fellow

☐ Non-member

[XX] Cardiology Subsection Member

Presentation will need:

[XX] 2x2 Slides

☐ Overhead Projector

☐ Movie Projector

☐ Projectionist

☐ Other

ABSTRACT REPRODUCTION FORM

ROLE OF α THALASSEMIA IN SICKLE CELL ANEMIA. Wesley Covitz, M.D., FAAP*, Alexander E. Felice, M.D., Ph.D., Paul F. Milner, M.D., Virgil C. McKie, M.D., FAAP, Kathleen M. McKie, M.D., Harry C. Davis, Department of Pediatrics, Medical College of Georgia, Augusta, Georgia.

The purpose of this study was to ascertain whether α thalassemia heterozygotes (α thal) who have sickle cell anemia (SCA) suffer fewer cardiac effects of their SCA due to an increased oxygen carrying capacity or decreased sickling. Echocardiograms and graded, maximal exercise tests were performed in 22 subjects with α thal and SCA, and in 22 age and sex matched controls (C) with SCA alone. The patients ranged in age from 8-32 years. None were ill within two weeks of study. No significant differences were found for any of the following measurements: age (α thal 19.0 years, C 18.5); hemoglobin (α thal 8.8 gm%, C 8.2); hemoglobin F (α thal 6.6%, C 7.8); body surface area (α thal 1.43 M^2, C 1.45); heart rate (α thal 78.6, C 80.3); left ventricular (LV) dimension (α thal 5.38 cm., C 5.42); LV wall thickness (α thal 0.91 cm., C 0.92); right ventricular (RV) dimension (α thal 2.26 cm., C2.42); left atrial dimension (α thal 3.70 cm., C 3.91); shortening fraction (α thal 34.8%, C 36.5); and work capacity (α thal 7.3 kg-m/min/kg, C 8.4). Exercise induced S-T depression was noted in 8/44 (18%) of subjects. The α thal group was more often affected 6/8 (NS). α thal was not protective in heterozygotes with SCA. The importance of these findings is that they form the basis for a study of α thal homozygotes who provide a model in which the cardiac effects of sickling may be separated from the effects of reduced hemoglobin.

DEADLINE FOR SUBMISSION IS MAY 2, 1986 (POSTMARK)

1. Please read instructions before typing abstract.
2. Abstracts will be published in the American Heart Journal September, 1986.
3. If Abstract is submitted to The Section on Cardiology and the American Heart Association, and accepted by The Section, it will be presented ONLY at the Section meeting and published with The Section abstracts in the American Heart Journal.