



Children's Hospital Boston

The Hospital for Children

Division of Immunology

1 Blackfan Circle
Boston, MA 02115
(617) 919-2484

Project Inventory

Title: Hypersensitivity reactions to hydroxychloroquine in juvenile dermatomyositis patients

Principal Investigator: Robert Sidbury MD, MPH

Researchers Involved: Peter Lio, MD - Mary Beth Son, MD - Robert Sundel, MD - Harley Haynes, MD

Summary: It has been noted by our adult dermatologist colleague at the Brigham and Women's Hospital (Dr. Harley Haynes) that a very large percentage of adult dermatomyositis patients develop a hypersensitivity reaction to plaquenil. There is one paper in the literature that supports this observation in adult patients noting a frequency of 31% (Pelle MT, Arch Dermatol, 2002;138:1231) This is not a phenomenon that has been observed anecdotally in pediatric patients by either the dermatology service (RSi, PL) or the rheumatology service (MBS, RSu) at Children's Hospital Boston. Similarly, there is nothing in the pediatric literature about this potential reaction. Juvenile dermatomyositis (JDMS) has well accepted differences from adult dermatomyositis (DM). Among the principle differences are the following: 1) DM is considered to be a paraneoplastic condition whereas JDMS is not 2) JDMS patients have increased incidence of calcinosis relative to DM patients. We hypothesize that the tendency to develop a hypersensitivity reaction to plaquenil may be yet another such difference. We plan to review the charts of over 60 patients followed by the Dermatology and Rheumatology Services at Children's Hospital Boston. All of these patients have taken or are taking plaquenil. We will document the proportion of patients with a history of such a reaction to plaquenil and compare this to historical controls (Pelle paper) We will also record additional demographic data to try and identify subgroups that may be more susceptible to hypersensitivity reaction.

Funding Source(s): N/A

Contact Information:

Robert Sidbury MD, MPH
Dermatology Program – Fegan 6
300 Longwood Avenue
Boston, MA 02115
robert.sidbury@childrens.harvard.edu



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Project Inventory

Title: Vitamin D Supplementation for wintertime Atopic Dermatitis: A randomized controlled trial

Principal Investigator: Carlos Camargo MD, PhD

Researchers Involved: Robert Sidbury MD, MPH - Ashley Sullivan, MS - Ravi Thadhani MD - Carlos Camargo MD, PhD

Summary: AD is a common pediatric skin disease occurring in 17.2% of the U.S. population. AD is known to be a T-cell mediated inflammatory disease with well-characterized cutaneous barrier abnormalities. The relative contribution of these two pathophysiologic features has historically been poorly understood. Recent basic advances have refocused AD investigation on skin barrier abnormalities. Vitamin D effects on cutaneous differentiation and metabolism are well characterized though not in the context of AD. Elucidation of the role of Vitamin D in human susceptibility to bacterial infection and its interaction with cytokines involved in innate immune pathways and the cutaneous inflammatory response have suggested a possible connection to AD pathogenesis.

We propose a randomized, double blind, placebo-controlled pilot trial. The intervention will be 800 IU/day of vitamin D in pill or liquid form. The Placebo will be made up by the Children's Hospital Boston Pharmacy to be indistinguishable from Vitamin D. The intervention will simply be added to their baseline therapeutic regimen. In addition, both the intervention and placebo groups will receive a packet containing one month's supply of emollient and teaching materials about appropriate skin care for patients with atopic dermatitis.

Patients aged 2-17 years with AD diagnosed by Hanifin/Rajka criteria [13] will be recruited from the dermatology clinic.

Funding Source(s): Center for D-Receptor Activation Research

Contact Information:

Robert Sidbury MD, MPH
Dermatology Program – Fegan 6
300 Longwood Avenue
Boston, MA 02115
robert.sidbury@childrens.harvard.edu