overexpression of TSLP in the lungs or skin also promoted peripheral basophilia. This systemic basophilia resulted from TSLP-triggered expansion of bone marrow precursor cells through a mechanism independent of IL-3 signaling. Basophils were present in TSLP-deficient mice, indicating that TSLP was not essential for normal basophil development. In comparison with classical basophils induced by IL-3, TSLP-elicited basophils expressed higher levels of TH2-skewing cytokines and proinflammatory mediators. Furthermore, basophils obtained from patients with eosinophilic esophagitis, a disease associated with mediators. Furthermore, basophils obtained from patients with eosinophilic esophagitis, a disease associated with aberrant TSLP production, were phenotypically distinct from those found in healthy controls.

CONCLUSIONS. Abnormal TSLP production at 1 barrier surface may promote development of allergic inflammation at other sites by increasing the number and altering the function of circulating basophils.

REVIEWER COMMENTS. It is well known that patients with 1 allergic disorder are likely to develop others, but the mechanisms for this “atopic march” remain obscure. Here, the authors show an important role for the cytokine TSLP, which has been shown to be highly expressed in animal and human tissues with active allergen-driven inflammation. The ability of TSLP to expand and alter the phenotype of peripheral basophils may promote the development of allergic disease at other barrier surfaces and could explain why patients with atopic dermatitis frequently go on to develop asthma or food allergy. In addition to contributing to our understanding of the biology of allergic diseases, these studies also identify TSLP as a potentially important target for pharmacological blockade in vulnerable patients.

The Wisconsin Approach to Newborn Screening for Severe Combined Immunodeficiency

PURPOSE OF THE STUDY. Severe combined immunodeficiency (SCID) is a life-threatening disease of infants that is curable with hematopoietic cell transplantation if detected early, whereas the outcome is less favorable if treatment is delayed. The study evaluated outcomes of a screening program in Wisconsin.

STUDY POPULATION. Newborns in Wisconsin over a 3-year period.

METHODS. Population-based screening for SCID by using the T-cell receptor excision circle (TREC) assay applied to samples obtained from routine newborn screening (Guthrie) cards has been underway in the state of Wisconsin since 2008.

RESULTS. Five infants with SCID or other forms of severe T-cell lymphopenia (TCL) have been detected out of a total