125) and now is associated with development of ASD. Extra-axial fluid and rapid head growth in infancy is not always a benign reversible disorder.

Neurobiological abnormalities in infants who later develop ASD.

Studies since 2009 showing abnormalities in head circumference, electrophysiological markers and interhemispheric synchronization and differences in various brain regions (amygdala, cerebellum, frontal and temporal cortex) are reviewed by investigators at the University of Glasgow, Scotland. Cross-disciplinary approaches are essential to elucidate sequence of developmental abnormalities during early infancy leading to ASD (Allely CS, Gillberg C, Wilson P. **Behav Neurol** 2013 Aug 20. [Epub ahead of print]).

Eyeblink conditioning (EBC) is proposed as a non-invasive biomarker for ASD that can be employed shortly after birth (Reeb-Sutherland BC, Fox NA. **J Autism Dev Disord** 2013 Aug 14. [Epub ahead of print]). The neural circuitry for EBC involves sensory information from the cornea to the trigeminal nucleus, the interpositus nucleus and cerebellar cortex.

DEMYELINATING DISORDERS

CHANGES IN T-CELL HOMEOSTASIS IN MULTIPLE SCLEROSIS

Investigators at University Hospital, Heidelberg, and other centers in Germany, studied the composition of the peripheral T-cell compartment and regulatory T cell (Treg) function in 30 pediatric MS patients by multicolor flow cytometry and proliferation assays. Data from pediatric patients were compared to those obtained from 26 adult patients and 67 age-matched control donors. The proportions of both naïve and Treg cells are highest in the youngest children and decrease steadily with age. Pediatric MS patients had lower numbers of naive T cells, including recent thymic emigrants, whereas percentages of memory T cells were increased. Homeostatic changes in circulating T cells paralleled the pattern in adult MS. Treatment with immunomodulatory drugs attenuated the changes. Signs of early thymic involution are found in pediatric MS, suggesting that an intrinsic compromise in thymic-dependent T-cell neogenesis might contribute to MS pathogenesis. (Balint B, Haas J, Schwarz A, et al. T-cell homeostasis in pediatric multiple sclerosis. **Neurology** 2013 Aug 27;81(9):784-792).(Response: Prof Dr Wildemann. E-mail: Brigitte.wildemann@med.uni.heidelberg.de).

COMMENT. The authors conclude that the similarities in the T-cell compartment between adult and pediatric MS patients support a shared disease pathogenesis, immunologic disease mechanism, and response to therapy. Immunomodulatory drugs used in adult-onset MS might have the same effects in pediatric MS. Further studies are warranted to address whether premature senescence of the thymus and T-cell pool occurs at the earliest detectable stages of disease in children (Bar-Or A, Muraro PA. Premature immune senescence in children with MS: Too young to go steady. **Neurology** 2013 Aug 27;81(9):778-9).