

8 had hydrocephalus and an associated meningocele. BAER abnormalities were similar in the two groups. Postoperative BAER changes correlated well with reduction in ventricular size as determined by CT. The worsening of BAER postoperatively in 4 patients (20%) correlated with an abnormality in the postoperative CT scan, which showed progression of hydrocephalus due to shunt block and slipped shunt tube and subdural hematoma (2). BAER abnormalities referable to dysfunction of the rostral brainstem recovered later than those localized to the caudal brainstem. The proximity of the upper brainstem to the enlarged ventricular system could be responsible for pathological changes such as compression, distortion or displacement leading to associated persistent edema and more prolonged BAER abnormalities. (Venkataramana N K et al. Evaluation of brainstem auditory evoked responses in congenital hydrocephalus. Child's Nerv Syst Dec 1988; 4:334-338).

COMMENT. The study of BAER is useful for identifying physiological brainstem abnormalities in hydrocephalic children and promises to be a sensitive, noninvasive, diagnostic tool for the detection of complications of shunt surgery other than those secondary to infection. Causes of dysfunction in the brainstem associated with congenital hydrocephalus include distortion and displacement, raised intracranial pressure, and developmental anomalies of the brainstem and auditory pathways. In 20% of the cases in this study, worsening of BAER postoperatively was correlated with complications such as subdural hematoma and raised intracranial pressure.

#### BAER IN POSTHEMORRHAGIC VENTRICULAR DILATATION

Nineteen infants with posthemorrhagic ventricular dilatation were studied with serial auditory brainstem responses at the Department of Paediatrics and Neonatal Medicine, Hammersmith Hospital, London. The cerebrospinal fluid pressure was measured in 9 of the 19 infants directly during lumbar or ventricular taps with a Gaeltec pressure transducer. No correlation was found between cerebrospinal fluid pressure and prolonged interpeak intervals on the BAER. Improvement occurred in 3 patients when cerebrospinal fluid was withdrawn. In one full term infant, improvement in BAER occurred one week after shunting. The lack of correlation between the I-V interpeak interval and the intracranial pressure in preterm infants was probably due to better adaptation of the immature brain to increased intracranial pressure. (Lary S, Dubowitz V et al. Arch Dis Child Jan 1989; 64:17-23).

COMMENT. Abnormalities in auditory brainstem responses in premature infants may resolve irrespective of the persistence of progression of ventricular dilatation. Improvements in BAER, especially of the amplitude, could occur after drainage of cerebrospinal fluid in some cases. The responses in full term infants may differ from those of preterm infants.