atypical Rett cases. In classic Rett, poor growth was associated with worse development, higher disease severity, and certain MECP2 mutations. (Tarquinio DC, Motil KJ, Hou W, et al. Growth failure and outcome in Rett syndrome. Specific growth references. **Neurology** 2012 Oct 16;79(16):1653-61). (Response and reprints: Dr Tarquinio; E-mail: danieltarq@aol.com).

COMMENT. More than 200 mutations identified in MECP2 are associated with growth velocity in Rett syndrome, and specific mutations are associated with developmental outcome. In a study of MECP2 mutations and clinical correlations in Greek children with Rett syndrome, mutations were detected in ~70% of classic and ~21% of variant Rett syndrome cases. MECP2-positive females had more problems in ambulation, muscle tone, tremor and ataxia, respiratory disturbances, head growth, hand use and stereotypies. (Psoni S, Sofocleous C, Traeger-Synodinos J, et al. **Brain Dev** 2012 Jun;34(6):487-95).

BRAIN TUMORS

ENDOCRINE SYMPTOMS IN HYPOTHALAMIC-PITUITARY TUMORS

Researchers at Universite Paris Descartes and other centers in Paris, France performed a retrospective, study of 176 patients (93 boys) aged 6 years (range 0.2-18 years) with hypothalamic-pituitary lesions to determine whether the time to diagnosis could be shortened by analyses of clinical and endocrine presenting symptoms. The lesions were craniopharyngioma in 56, optic pathway glioma (n=54), supracellar arachnoid cyst (25), hamartoma (22), germ cell tumor (12), and hypothalamic-pituitary astrocytoma (7). The most common presenting symptoms were neurologic (50%) and/or visual complaints (38%). Endocrine symptoms occurred alone in 28%. Precocious puberty triggered the diagnosis in 19% of 131 prepubertal patients, and occurred earlier in patients with hamartoma than those with optic glioma ($P<0.02$). Isolated diabetes insipidus led to diagnosis of all germ cell tumors. In 122 patients presenting with neuro-ophthalmic symptoms, the mean interval from symptom to diagnosis was 0.5 year, although 66% of patients had abnormal body mass index or growth velocity, which preceded the presenting symptom onset by 1.9 years ($P<0.0001$) and 1.4 years ($P<0.0001$), respectively. Among this subgroup of patients with neuro-ophthalmic presenting symptoms, endocrine symptoms were present before onset of presenting symptoms in two-thirds of cases. Obesity occurred prior to diagnosis in 41 (38%) of 108 patients evaluated for BMI. Abnormal BMI or BMI progression was observed in 67 (62%) patients at a median time of 2.5 years prior to diagnosis. The French guidelines for the management of obese children state that endocrine or brain tumor should be suspected in case of poor growth velocity with obesity, and the AAP recommendations state that an exogenous cause of obesity (e.g. tumor) can lead to poor linear growth. In the cohort studied, 71% maintained normal growth velocity after onset of the presenting symptom and up to diagnosis of tumor. The guidelines failed to identify 61% to 85% of obese patients with a hypothalamic-pituitary lesion. (Taylor M, Couto-Silva A-C, Adan L, et al. Hypothalamic-pituitary lesions in pediatric patients: Endocrine symptoms often

precede neuro-ophthalmic presenting symptoms. **J Pediatr** 2012 Nov;161(5):855-863.e3). (Reprints: Dr Melissa Taylor, E-mail. melissa.taylormarchetti@gmail.com).

COMMENT. Endocrine disorders precede the onset of neuro-ophthalmic presenting symptoms in two-thirds of patients. Greater attention and identification of changes in weight, height, BMI and endocrine symptoms in children with hypothalamic-pituitary lesions should lead to earlier diagnosis and treatment. (Rogol AD. Editorial. **J Pediatr** 2012 Nov;161(5):778-80).

In a study of endocrine and growth features in 32 children with craniopharyngioma, neuro-ophthalmic presenting symptoms (headache, vomiting, visual impairment) were most common. Some patients presented with signs or symptoms of endocrine disorder (polyuria, polydipsia, growth failure, precocious puberty, and obesity). The growth pattern was heterogeneous. After tumor treatment, growth hormone deficiency required hormonal therapy, but 8 grew normally without growth hormone. (Di Battista E, Naselli A, et al. **J Pediatr Endocrinol Metab** 2006 Apr;19 Suppl 1:431-7).

HEADACHE DISORDERS

MIGRAINE AND SCHOOL PERFORMANCE IN PREADOLESCENT CHILDREN

Researchers at the Glia Institute, Brazil; Albert Einstein College of Medicine, NY; and other centers conducted a population-based study of school performance in children in Brazil with migraine. Episodic migraine occurred in 9%, probable migraine in 17.6%, and chronic migraine in 0.6% of 5, 671 children from 87 cities and 18 Brazilian states. Teachers provided information and measurements of the overall scholastic achievement for the school year. Parents were interviewed using a headache questionnaire and the Strengths and Difficulties Behavior Questionnaire. Poor performance in school was significantly more likely in children with episodic and chronic migraine, in terms of severity and duration of attacks, abnormal scores of mental health, and by nausea, headache frequency, use of analgesics, and gender. (Arruda MA, Bigal ME. Migraine and migraine subtypes in preadolescent children. **Neurology** 2012 Oct 30;79(18):1881-8). (Response: Dr Bigal. E-mail: marcelo_begal@merck.com).

COMMENT. Children with migraine are more likely to have below average school performance relative to children without headaches and more likely to have missed school days. These associations are correlated with the severity of pain, presence of associated symptoms, and frequency of pain. The associations are predicted by behavior and emotional symptoms.

A current study to assess cognitive functioning of Italian children with migraine without aura and those with tension-type headache finds no difference in FS IQ between the groups, but children with tension-type headache have a lower verbal IQ and a higher performance IQ than healthy controls and children with migraine. Children with migraine have lower perceptual organization than those affected by tension-type headache. (Esposito M, Pascotto A, Gallai B, et al. **Neuropsychiatr Dis Treat** 2012;8:509-13).