

**Objectives** To date, limited data has been available regarding the impact of adenotonsillectomy (AT) on the psychosocial well-being of chronic adenotonsillar hypertrophy (CAH) subjects.

**Aims** In the present study, we examined the impacts of AT on attention-deficit/hyperactivity disorder symptoms (ADHD) and sleep disturbance symptoms and quality of life of children with chronic adenotonsillar hypertrophy.

**Methods** Parents of children with CAH filled in Conners Parent Rating Scale-Revised Short (CPRS-RS), children's sleep habits questionnaire (CSHQ), and the pediatric quality of life inventory, parent versions (PedsQL-P) before and six months after AT.

**Results** A total of 64 children were included the study (mean age:  $6.8 \pm 2.4$  years; 50% boys). Mean ADHD Index ( $11.98 \pm 6.94$  versus  $10.35 \pm 6.44$ ) (before AT versus after AT) and oppositional scores ( $6.73 \pm 3.72$  versus  $5.87 \pm 3.52$ ) improved statistically significantly after AT ( $P < 0.05$ ). All of the CSHQ subdomain scores, except sleep duration, significantly reduced after AT ( $P < 0.05$ ). Regarding to quality of life, both PedsQL-P physical health ( $64.20 \pm 19.81$  versus  $69.84 \pm 18.63$ ) and psychosocial health subdomain scores ( $67.83 \pm 12.89$  versus  $75.57 \pm 13.16$ ), and PedsQL-P total score ( $66.57 \pm 12.94$  versus  $73.58 \pm 12.46$ ) of the patients were significantly higher six months after AT ( $P < 0.001$ ).

**Conclusions** It is necessary for child and adolescent psychiatrists to query the symptoms of CAH to identify children with chronic adenotonsillar hypertrophy who suffer from ADHD symptoms, oppositionality, and sleep disturbance. To carry out AT seems to be beneficial for coexisting ADHD and sleep disorder symptoms and quality of life in these children.

**Disclosure of interest** The authors have not supplied their declaration of competing interest.

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#### EW0588

### Intelligence functioning and associated factors in children with cerebral palsy

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**Objectives** Cerebral palsy (CP) is described as a primary disorder of posture and movement; however, intellectual impairment is prevalent in children with CP.

**Aim** The aim of the present study was to examine the association with intellectual level and gross motor function, hand function, type of CP, and the presence of co-morbid disorders in these children.

**Methods** A total of 107 children with CP were included in the study. Intellectual functions of the children were determined by clinical assessment, adaptive function of daily life, and individualized standardized intelligence testing. Gross motor function and hand function of the patients were classified using the gross motor function classification system and the bimanual fine motor function measurements.

**Results** The mean age of the patients were  $8.10 \pm 3.43$  years (age: 2–16 years). During clinical typing, we observed that 80.4% of the patients were spastic, 11.2% were mixed, 4.7% were dyskinetic, and 3.7% were ataxic. No significant relationship was determined between the type of CP and intellectual functioning ( $P > 0.05$ ). Intellectual functioning was found to be significantly correlated

negatively with both gross motor function and hand functions level ( $P < 0.001$ ). The factors related to intellectual functioning were neonatal convulsion ( $\chi^2 = 12.97$ ,  $P = 0.002$ ), epilepsy ( $\chi^2 = 29.221$ ,  $P < 0.001$ ), and speech disorders ( $\chi^2 = 23.29$ ,  $P < 0.001$ ).

**Conclusions** There is an association between intellectual functioning in children with CP and the degree of motor impairment, neonatal convulsion, epilepsy, and speech disorders. Intelligence assessment should be an essential part of CP evaluation.

**Disclosure of interest** The authors have not supplied their declaration of competing interest.

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#### EW0589

### Methylation related to perceived parenting in adolescents and its association to depressive symptoms two years later

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**Introduction** Adolescents' well being is affected by their parenting situation and can influence their well being over time. We present an exploratory study with an Illumina 450 k array, comparing methylation in adolescents, based on perceived parenting at  $T_0$ , and how methylation can interact with parenting in explaining depressive symptoms two years later ( $T_2$ ).

**Objectives** Identify differentially methylated regions (DMRs) associated with perceived parenting at  $T_0$  and investigate their association with depressive symptoms two years later.

**Aims** An exploratory analysis evaluating the association between methylation and depressive symptoms longitudinally.

**Methods** From two extreme parenting clusters: perceived supportive, and punishing neglecting, we randomly selected 44 adolescents ( $M_{Age} = 14$  at  $T_0$ ; 48% boys). The CES-D scale (Center for Epidemiologic Studies Depression Scale) assessed depressive symptoms. DMRs were identified based on the parenting clusters (DMRcate and comb-p) using Illumina Infinium HumanMethylation 450 BeadChip data. Associations between the most significant CpG for each DMR and the depression score at  $T_2$ , were calculated using linear regression analysis.

**Results** We identified 17 DMRs, but only cg13306335 in PEX10 was associated with depressive symptoms at  $T_2$  ( $P = 0.0014$ , Bonferroni (17 tests);  $P < 0.0029$ ). Additionally, an interaction between parenting at  $T_0$  and PEX10 methylation ( $T_0$ ) in explaining depressive symptoms ( $T_2$ ) can be suggested ( $P = 0.014$ ).

**Conclusions** We show that methylation at PEX10's most significant CpG is correlated with depressive symptoms at  $T_2$ , these exploratory results also suggest a possible interaction between parenting and PEX10 methylation at  $T_0$  in association with depressive symptoms at  $T_2$ . Validation in a larger sample is needed to support the role of methylation and its interactions in depression over time.

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