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Pruritic urticarial papules and plaques of gestation in perinatal depression

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Introduction The cutaneous polymorphic eruption of pregnancy (PEP) is presented by skin lesions usually in the third trimester of gestation and about 13% of women also suffer from perinatal depression.

Objective To determine the frequency of pruritic urticarial papules of gestation with and without perinatal depression.

Aim To assess the maternal causes for polymorphic eruption of pregnancy (PEP) in patients with and without perinatal depression.

Methods Cases and controls were matched on the grounds of maternal weight gain in gestation, hormonal changes, deficit in iron and zinc, dysregulation of hypothalamic pituitary axis, pre-maturity, pre-eclampsia, pre-term labour. Univariate and multivariate analysis, adjusting for important demographic factors and comorbidities was conducted to assess the relationship of PEP with and without perinatal depression in reduced and full models of ANOVA in regression analysis. (Reduced model $Y = \beta_0 + \beta_1 X_1 + \dots$ and the full model $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \dots$)

Results Polymorphic eruption of pregnancy with perinatal depression was statistically significant in maternal weight gain in gestation [odds ratio (OR) 1.20; 95% (CI): 1.15–1.30], hormonal changes [(OR) 2.78; 95% (CI): 2.52–2.82], deficit in iron and zinc [(OR) 2.18; 95% (CI): 2.04–2.38], dysregulation of hypothalamic pituitary axis [(OR) 1.37; 95% (CI): 1.18–1.49] and was not statistically significant in pre-maturity, pre-eclampsia and pre-term labour in cases and controls.

Conclusion Pruritic urticarial papules and plaques of gestation are commonly associated in patients with perinatal depression.

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

<http://dx.doi.org/10.1016/j.eurpsy.2016.01.217>

EW100

Biomarkers of response to transcranial magnetic stimulation in youth with treatment resistant major depression

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Background Major depressive disorder (MDD) affects approximately 15% of youth, half of who do not respond to standard treatment. One promising intervention is repetitive transcranial magnetic stimulation (rTMS). However, response is limited, highlighting the need to focus on biomarkers to predict treatment response.

Objectives To explore baseline biomarkers of response associated with rTMS treatment in adolescent MDD.

Aims To determine the association between dorsolateral prefrontal cortex (DLPFC) glutamate levels, cortical thickness, and cerebral blood flow (CBF) with MDD symptomatology decrease after rTMS intervention.

Methods Twenty-four MDD youth underwent 3 weeks of rTMS, baseline and post-intervention magnetic resonance imaging scans, and short echo proton magnetic resonance spectroscopy. Response was determined by a 50% reduction of depression scores.

Results Depressive symptoms decreased with rTMS ($t = 8.304$, $P = 0.00$). Glutamate levels differed significantly between responders and non-responders ($t = 2.24$, $P = 0.0039$), where higher glutamate changes were associated with a better response ($r = 0.416$, $P = 0.038$). Responders also exhibited thinner DLPFC ($r = -0.797$, $P = 0.000$) and lower CBF levels.

Conclusions The development of biomarkers for rTMS represents a novel and encouraging technique for a personalized and effective treatment while reducing ineffective treatment costs and personal burden in adolescent MDD.

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

<http://dx.doi.org/10.1016/j.eurpsy.2016.01.218>

EW101

Adults with persistent ADHD: Gender and psychiatric comorbidities – a population-based longitudinal study

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Objective To evaluate in adults the associations between persistent ADHD and comorbid psychiatric disorders and gender differences, among subjects from a population-based birth cohort.

Method Subjects were recruited from a birth cohort of all children born during 1976–1982 who remained in Rochester, MN after five years of age. Participating subjects with research-identified childhood ADHD ($n = 232$; mean age 27.0 years; 72% men) and non-ADHD controls ($n = 335$; mean age 28.6 years; 63% men) were administered a structured psychiatric interview (MINI-

International Neuropsychiatric Interview) to assess current ADHD status and comorbid psychiatric disorders.

Results Among the 232 with research-identified childhood ADHD, 68 (49 men and 19 women) had persistent adult ADHD. Compared to subjects without childhood ADHD, adults with persistent ADHD were significantly more likely to have any (81% vs. 35%, $P < 0.001$) as well as each of the specific psychiatric comorbidities. The associations retained significance when stratified by gender and there were no significant gender by ADHD interactions on psychiatric disorders except for dysthymia with which ADHD was more strongly associated in women than men. Among subjects with persistent ADHD, externalizing psychiatric disorders were more common in men (73%) and internalizing disorders were more common in women (53%).

Conclusion Persistent ADHD is associated with an increased risk of comorbid psychiatric disorders in both adult men and women. Clinicians treating adults with persistent ADHD need to be aware of comorbid psychiatric disorders, especially externalizing disorders for men and internalizing disorders for women.

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

<http://dx.doi.org/10.1016/j.eurpsy.2016.01.219>

EW102

Clinical correlates of comorbid chronic tics and Tourette syndrome in a National Inpatient Children's Unit

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Introduction Chronic tics and Tourette syndrome (TS) can be comorbid with several neuropsychiatric conditions and may add to the complexity of children's clinical presentation and need for inpatient input.

Objectives To review the clinical notes of all children admitted to a National Children's Inpatient Unit (aged up to 12 years) over a 5-year period and analyse their demographic and clinical characteristics including the presence of chronic tics/TS.

Aims To assess the clinical correlates of comorbid chronic tics/TS in an inpatient preadolescent population.

Methods A retrospective naturalistic study of all patients admitted to our unit from 2009 to 2014 was conducted. Children with and without chronic tics/TS were compared in terms of age, gender, family history of mental illness, history of neurodevelopmental problems in siblings, medication on admission and at discharge, length of admission and functional outcomes using Chi² and *t*-tests for categorical and continuous data respectively.

Results A total of 133 children (mean age = 11.2 years) were included. Twenty-five (18.8%) were diagnosed with chronic tics/TS. Autism spectrum disorder was the most commonly comorbid diagnosis (84%), with the second most common being an anxiety disorder/OCD (52%). Statistically significant higher percentages of learning disability, neurodevelopmental problems in siblings, medication at discharge and longer inpatient admissions were identified in children with tics compared with the rest of the sample. No other differences were found.

Conclusions The prevalence of chronic tics/TS in children needing inpatient treatment is significant. In our sample, chronic tics/TS seem to represent a marker of increased neurodevelopmental deviance and overall symptom severity.

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

<http://dx.doi.org/10.1016/j.eurpsy.2016.01.220>

Classification

EW103

Diagnostic stability of acute and transient psychotic disorder: A systematic review and meta-analysis

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Introduction The validity and diagnostic stability of acute and transient psychotic disorder (ATPD) has been questioned by several authors, since its introduction in the International Statistical Classification of Diseases (ICD-10).

Objective To determine the overall diagnostic stability of ATPD in scientific literature.

Method A systematic review and meta-analysis of prospective studies and retrospective chart reviews. Computerized search was performed in MEDLINE/PubMed, EMBASE, and Google Scholar, using the terms: "acute and transient psychotic disorder", or "acute psychosis", and "stability", or "outcome", or "long-term", or "follow-up", or "course". Search was restricted to works in English published between 1993 and 2015, according to ICD-10 criteria. Opinion articles, individual case reports, researches with less than ten subjects, and overlapping studies were excluded. Data analysis was conducted using MedCalc software, version 15.8. Statistical procedure was calculated for meta-analysis of proportions.

Results Twenty-six studies met the inclusion criteria ($n = 10852$). For methodological purposes, a distinction was made between short-term (less than 2 years), medium-term (between 2–7 years), and long-term stability (more than 7 years). For short-term group ($k = 5$), the overall stability was 60.69% (fixed effects model); Cochran's heterogeneity statistic $Q = 14.9$, $I^2 = 73.15\%$, $P = 0.0049$. For medium-term group ($k = 15$), it was 49.99%; $Q = 181.6$, $I^2 = 92.29\%$, $P < 0.0001$. For long-term group ($k = 6$), it was 61.86%; $Q = 35.12$, $I^2 = 92.29\%$, $P < 0.0001$.

Conclusion The global stability of ATPD indicates at the validity of the construct, but should be redefined in future revisions of ICD, to clarify better diagnostic criteria, and more predictive power.

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

<http://dx.doi.org/10.1016/j.eurpsy.2016.01.221>

Cognitive neuroscience

EW104

Human factors in driving accidents: A cognitive investigation in the Gulf context

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