CANNABIS EXPOSURE IN YOUNG CHILDREN: INCREASING RATE OF HOSPITALISATION IN FRANCE IN THE RECENT YEARS

M. Lapeyre-Mestre1,2; E. Chauvin1; E. Jouanjus1,2,3; V. Pauly4; M. Lafaurie1; A. Roussin1,2,3; and French Addictovigilance Network
1Centre Hospitalier Universitaire, Toulouse, France; 2Université de Toulouse, France; 3UMR Inserm 1027, Toulouse France; and 4Assistance Publique des Hopitaux, Marseille, France

Background: Adverse outcomes of cannabis are well-known in young adults, such as neuropsychiatric, cognitive or cardiovascular disorders. However, the risk of cannabis exposure in children are less well recognised, despite several case reports or case series recently published. The aim of this study was to investigate a potential increase of cannabis harms in France in young children.

Methods: The French addictovigilance network summarized data concerning children under 10 years old, from 2010 to 2014, through analysis of spontaneous reporting, and national hospitalisation registry (PMSI, using specific ICD 10th codes to identify hospitalisations related to cannabis) and/or toxicological database where available. These data allowed a geographical analysis of trends of hospitalisation related to cannabis exposure in children in France.

Results: A total of 140 reports were identified, most of these cases concerning toddlers (less than 2 years old): 120 were hospitalized, 9 were “serious” (with a life-threatening condition needing an admission in an intensive care unit). None of these children died. Toxicological confirmation was obtained in 84 cases, with 16 quantitative assessment of THC or its metabolites in blood or urines. Most of cases were related to an unintentional ingestion in the family context. During this period, the number of cannabis-related hospitalizations hugely increased, from 66 cases in 2010 to 247 in 2014. The hospitalization rate per 100,000 children increased from 7.1 in 2010 to 23 in 2014 in French South areas, whereas it remains stable and low in other areas. This geographical repartition may be superimposed on the regional prevalence of cannabis use in the French population.

Conclusions: Although the number of cannabis paediatric exposures was low, this analysis highlights a signal of increasing rate of hospitalisation of children following cannabis exposure, associated with an appearance of increasing seriousness of these cases (coma, seizures).

OPINIONS OF NATIONAL COMPETENT AUTHORITIES REGARDING PATIENT REPORTING OF ADVERSE DRUG REACTIONS

C. Matos1; L. Härmk1; and F. van Hunsel2
1Faculty of Pharmacy, University of Seville, Seville, Spain; and 2Netherlands Pharmacovigilance Centre Lareb, ’s-Hertogenbosch, The Netherlands

Background: Patients are important contributors to pharmacovigilance through active reporting of adverse drug reactions (ADRs). In recent years, more and more national competent authorities (NCAs) have implemented systems to receive ADR reports directly from patients. However, the implementation and promotion of patient reporting systems differ worldwide as well as the general opinions of NCAs about patient reporting.

Methods: A web-based questionnaire was constructed based on qualitative interviews and distributed through the SurveyMonkey® platform to all countries listed on WHO Programme for International Drug Monitoring (n=178) during November/December of 2015. Data were analyzed using descriptive statistics and chi-square (χ2) tests.

Results: Questionnaires were received from 141 countries (79.2%). Official patient reporting system (PRS) - designed specifically for patients - is implemented in 44 countries (31.2%). However, reports from patients are allowed in 107 countries. Lack of resources/budget (56.5%) and lack of information/education for patients (56.5%) were the main reasons for not implementing an official PRS. Respondents acknowledge that their organizations don’t have the resources to promote patient reporting in the way they would like (71.1%) and that having an implemented PRS requires additional resources than a system for healthcare professionals (63.7%). For respondents, handling patient reports is more labor intensive (for example through coding, feedback, etc.) than healthcare professional’s reports (60.7%). On the other side, NCAs stated that patient reports could be useful to provide information that is not present in healthcare professional reports (80.7%) and that patient reports give more information on the impact of the ADR on the quality of life than healthcare professionals reports (77.0%).

Conclusions: Most countries accept adverse drug reaction reports from the general public. The lack of resources/budget and the lack of information/education for patients are highlighted as the major obstacles to the implementation of patient reporting systems.

INSIGHT GAINED FROM GENOME-WIDE INTERACTION AND ENRICHMENT ANALYSIS ON WEIGHT GAIN DURING CITALOPRAM TREATMENT

H.T. Corfitsen1,2; and A. Drago1
1Aarhus University, Aarhus, Denmark; and 2Psychiatric Research Unit, Herning, Denmark

Background: Weight gain is a possible side effect of the pharmacological antidepressant treatments. Defining antidepressant prescriptions based on personal genetic makeup would decrease the risk of weight gain and increase the quality of the current antidepressant pharmacological treatments.

Methods: Clinical and genetic data from the STAR*D study were accessed through the NIMH, after permission. 643 individuals (63.45% females) were included in the present analysis. All patients received citalopram (40 mg/day). Weight gain was measured as “Weight (Increase) Within the Last Two Weeks” and ranges from 0 (“no weight change”) to 3 (“has gained 5 pounds or more”). Combining different qualitative items in a single group as “cases” was deemed necessary to increase the statistical power, but it may be considered a limitation. SNPs were excluded for allele frequency <0.01 and low genotype call rate. Deviations from the Hardy-Weinberg equilibrium were accepted under a P-threshold of 0.0001. Enrichment analysis SNPs associated with the investigated phenotype were ranked according to the p-value of association. The first 1000 SNPs, showing a stronger association with the phenotype were selected. The genes that harbored such variations were investigated for enrichment.

Results: The axon guidance (p.adjust = 0.005) and the developmental biology pathway (p.adjust = 0.01) were enriched in variations associated with weight gain. The developmental biology pathway includes molecular cascades involved in the regulation of beta-cell development, and the transcriptional regulation of white adipocyte differentiation. A number of variations were harbored by genes...