

# medicina

BUENOS AIRES, VOL. 83 Supl. V - 2023



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La Tapa  
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# **REUNIÓN CONJUNTA SAIC SAB AAFE AACYTAL 2023**

**LXVIII REUNIÓN ANUAL DE LA  
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(SAIC)**

**XXV JORNADAS ANUALES DE LA SOCIEDAD  
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**VIII REUNIÓN CIENTÍFICA REGIONAL DE LA  
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(AACYTAL)**

15-17 de noviembre de 2023  
Hotel 13 de Julio – Mar del Plata

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<sup>1</sup> Hospital de Niños Ricardo Gutiérrez, Unidad de Toxicología.

<sup>2</sup> Hospital General de Agudos Donación Francisco Santojanni, Departamento de Urgencias.

Background: drug intoxication is a frequent problem in clinical practice. During childhood, accidental intoxication predominates, while intentional intoxication predominates in adolescence. Aim: Study the frequency of drug intoxications in a pediatric hospital toxicology service in the period before and during the covid pandemic. Methods: This study combines an ecological observational study (telephone consultations) and a before-after comparison, where the exposure (intervention) would be the epidemiological event of COVID-19 pandemic. Results: 5,572 drug intoxication were registered during two years of pre-pandemic period (2018-2019) and 4,936 during a pandemic period (2020-2021). The pandemic was associated with a lower risk of drug intoxications (RR 0.90 95%CI 0.87-0.94  $p < 0.01$ ). Registered drug intoxications were more frequent in females (53%-RR1.03 95%CI 0.99-1.06  $p < 0.92$ ) and in the preschool age group. During the pre-pandemic, a greater risk of drug was observed (RR 1.07 95% CI 1.03-1.11  $p < 0.01$ ) in preschoolers, while during the pandemic a greater risk was observed in adolescents (RR 1.38 95% CI 1.24-1.54  $p < 0.01$ ). The pandemic period was associated with a higher risk of intentional intoxication (RR 1.16 95%CI 1.07-1.26  $p < 0.01$ ). In 15% of cases two or more drugs were involved. In the pandemic period, there was a higher risk of acetaminophen intoxication (RR 1.61 95% CI 1.42-1.82  $p < 0.01$ ), meanwhile ibuprofen has greater number of intoxications during the prepandemic period (RR 1.30 95% CI 1.21-1.38  $p < 0.01$ ). The pandemic was associated with a higher risk of intoxication with ATC N03 (RR 1.13 95%CI 1.04-1.22  $p < 0.022$ ) and N06 group drugs (RR 1.49 95%CI 1.21-1.82  $p < 0.01$ ). Intentional cases were associated with a higher risk for N03 (RR 3.03 95% CI 2.80-3.27  $p < 0.02$ ); N05 (RR 3.21 95%CI 2.83-3.65  $p < 0.01$ ) and N06 group (RR 3.66 95%CI 2.99-4.47  $p < 0.01$ ). Conclusions: The pandemic was associated with a lower risk of drug intoxication. Drug intoxications predominate in pre-school during the pre-pandemic period, and in adolescents in the pandemic. Higher risk of paracetamol, ATC N03 group, and N06 intoxication were detected in pandemic period.

#### 441. 393. ADVERSE DRUG REACTIONS IN A EMERGENCY DEPARTMENT SETTING

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<sup>1</sup> Hospital General de Agudos Donación Francisco J. Santojanni, Departamento de Urgencias.

<sup>2</sup> Universidad de Buenos Aires, Facultad de Medicina, Centro de Vigilancia y Seguridad de Medicamentos.

Background: Adverse drug reactions increase morbidity and mortality, prolong hospital stay and increase healthcare costs. Aim: To determine the prevalence of emergency department visits for adverse drug reactions and to describe their characteristics. Methods: A pharmacovigilance committee receives all notifications of adverse reactions. They were classified according to their severity, seriousness, and seriousness criteria. The comparison with the available casuistry of the number of visits to the emergency department allowed to determine the frequency of reactions in each area and the frequency in which they generate hospitalization. Results: 247 reports of adverse reactions were registered. Most of them (225, 91.1%) were not serious. Among the serious ones, those that generated hospitalization (14, 5.7%), prolonged a pre-existing hospitalization (2, 0.8%), life at risk (4, 1.6%), or generated disability (2, 0.8%) predominated. Among non-serious events, the most frequent adverse reactions were gastrointestinal (85, 34.4%), hematologic (40, 16.2%), cardiac (35, 14.2%), and neurologic (31, 12.6%). Among the serious adverse events, hematological (11, 50.0%), dermatological (6, 27.3%) and hepatic (5, 22.7%) predominated. The number of total consultations of patients from which the reports generated by the professionals came is estimated in the same period at 12148, which allows establishing an incidence of adverse reactions in the emergency setting of not less than 2%, being at least 0.2 % cause of serious adverse reactions, often linked to hospitalization. Conclusion: Adverse drug reactions in the emergency setting are frequent

and generate significant morbidity. The report is lower than previously reported in other centers, suggesting the existence of under-reporting. Even so, it makes it possible to establish the existence of indicative levels and frequency of occurrence of adverse reactions for the planning of risk minimization measures.

#### 442. 568. NOVEL INSIGHTS INTO BASIC RESEARCH: EXPLORING MOLECULAR EFFECTS OF TRANS-CINNAMALDEHYDE AND EUGENOL ON $\alpha 7$ AND MUSCLE ACETYLCHOLINE RECEPTORS VIA ELECTROPHYSIOLOGICAL ASSESSMENT

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Instituto de Investigaciones Bioquímicas de Bahía Blanca, Departamento de Biología, Bioquímica y Farmacia, Universidad Nacional del Sur (UNS)-CCNICET, 8000 Bahía Blanca, Argentina.

Naturally occurring bioactive compound have been used in traditional medicine for the treatment of various diseases for many centuries. In modern times, there has been a renewed interest in natural compounds and essential oils for their medicinal properties. In recent years, it has been demonstrated that many of these natural compounds act on neurotransmitter receptors, including Cys-loop receptors such as the nicotinic acetylcholine receptor (nAChR). nAChRs form a family of ACh-gated ion channels found in the central and peripheral nervous systems, involved in processes like muscle contraction, memory, and attention. In this project, we assessed the molecular-level effects of trans-cinnamaldehyde (TC) and eugenol (EGN) -the two naturally occurring phenylpropanoids present in *Cinnamomum* oil- on two types of mammals nAChR, which are involved in several pathological disorders. As TC and EGN are multitarget drug, there is a need to establish the molecular mechanisms by which they may exert therapeutic as well as adverse effects. Through single-channel recordings, we observed that TC exerts a negative modulatory effect on both  $\alpha 7$  and muscular nAChR. On the one hand, TC leads to a marked reduction of  $\alpha 7$  activity by decreasing the frequency of activation episodes without causing changes in amplitude and in the open durations. On the other hand, recordings from muscular nAChR exhibit a concentration-dependent reduction in open channel duration within the micromolar range, induced by both TC and EGN. This change is accompanied by a shift towards shorter durations in the main closed component. The modulation of nAChRs is of pharmacological relevance and should be considered in the evaluation of the potential therapeutic uses of TC and EGN as. Our findings offer insights into how natural compounds influence Cys-loop receptors, which remain unexplored and are important targets in various therapeutic approaches.

#### 443. 582. THERAPEUTIC MONITORING OF ITRACONAZOLE IN PATIENTS WITH CHRONIC PULMONARY ASPERGILLOSIS: A POSSIBLE SOLUTION TO A COMMON PROBLEM

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Chronic pulmonary aspergillosis (CPA) is an infectious disease that without treatment, causes a slow and progressive destruction of the lung parenchyma. The monitoring of serum concentrations of antifungals is a pillar of successful treatment, since a sublevel can generate treatment failure and a supralevel, toxicity. However, long-term treatment is far from giving an optimal response to all patients. One of the possible causes of this low efficacy, as well as relapses, could be a deficient plasmatic level of itraconazole. Aims: Implement the therapeutic monitoring (TM) of itraconazole, using a sensitive, precise and fast method and, in case of detection of suboptimal levels, evaluate the possible serological and clinical relationship. Methods: To perform the TM, blood samples were obtained from patients diagnosed with CPA, followed-up by Dr. Javier Muñoz Hospital (CABA), who gave their consent. Samples were analyzed by liquid chromatography (HPLC) after deproteinization with acetonitrile, and