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# Pediatric Congress 2017: Drug-induced apnea in children conceded in Loghman Hakim Hospital from April 2012 to April 2013 - Narges Gholami-Shahid Beheshti University of Medical Sciences

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### Introduction:

Drugs have been previously and will later on still be at risk to prompt apnea in neonates, infants and older children. At these various phases of advancement, the child may be abnormally vulnerable against respiratory disorders and apnea, and doses of drugs, without any abnormal side effects in adult patients, can be unsafe in more youthful subjects. Drugs liable for apnea during improvement are various, yet the greater part of the issues are instigated by narcotics and hypnotics, among which barbiturates, benzodiazepines phenothiazines, (included transplacentally gained) and general anesthetics are a few. Other pharmacological families are apnea inducers in the neonatal period and childhood: analgesics and narcotic opiates, agents acting at the levels of neuromuscular function and autonomic ganglia, and cardiovascular operators. The pathogenesis of these apneas relies upon the aggravation of any instrument answerable for the respiratory action: medullary focuses and mind stem structures, afferent flood to CNS, rest stages, upper aviation routes, lungs and respiratory muscles. At key stages, for example, birth and infancy, drugs may underscore the specific affectability of the instruments answerable for instigating apnea. This may clarify unexpected respiratory issue during advancement.

#### **Background**:

Children are presented to various ecological risks, including poisons, which can cause unsalvageable impacts and even be deadly for them. Poisoning in children is among the common and dangerous emergencies but oft en is preventable and treatable. The purpose of this study is the evaluation of poisonings that lead to apnea in children.

Objectives: The present study aimed to assess the commonness of drugs and chemical poisoning prompting apnea. Likewise we recognized kind of drug that initiated apnea among Children. **Method**:

This study is a cross-sectional examination done among patients under 12 years of age with grievance of acute poisoning prompting apnea referred to Loghman Hakim Hospital Emergency Center (a significant center for poisoning treatment ) from 2012 April to 2013 April. Data including demographic characteristics, history of the sort and amount of substance used, the time among utilization and event of apnea and para clinical collected then the data collected from patients' files were gone into the information structures and the discoveries were investigated utilizing the SPSS rendition 20 statistical software.

#### **Result**:

During the study period, 96 cases of drugs and chemical poisoning leading to apnea were observed of which 51 (53.1%) were male and 45 (46.9%) female. The age range was from 25 days to 12 years old and the highest percentage (23%) was for 1 to 2 years olds. 21 cases (21.9%) had more than one apnea episodes. The mean interval between drug consumption and occurrence of apnea was 2.8 hours with a minimum interval of half an hour and maximum of 38 hours and 8 cases (8.3%) had apnea after 10 hours of poisoning indicating a relatively long period of time from consumption to apnea occurrence. In 40% of the cases of poisoning happened inadvertently by the child, 59% was given to the child by others and in 1% it was taken with for suicide intention (11 year old girl by Methadone). The most common cause of drug toxicity was Methadone syrup 74%, then Opium 13%, the Baclofen (5.2%), Heroin (2.1%) and Diphenoxylate, Tramadol, Organophosphate, Scorpion bites and unknown (1%). 18 cases (18.8%) had a seizure too. The most common laboratory abnormalities were leukocytosis (31%) and hyperglycemia (24%). The mean duration of hospitalization was 3.1+0.97 days with a maximum stay of 9 days and minimum of 1 day. The e mortality rate was three cases (3.1%) and all three cases were by Methadone poisoning. The e relationship between time of consumption of substance and occurrence of apnea is statistically signify can't (P=0.012713).

#### Conclusion:

The result of this research demonstrate a high predominance of apnea and poisoning and the hazardous nature of Methadone in children, which show the accessibility of this hazardous substance in homes due to faulty storage and distribution of this material that even hours after poisoning can lead to apnea. In this way, any in child presenting apnea, Methadone poisoning ought to be thought of and fitting treatment be given.