

EPIDEMIOLOGY OF NAPHAZOLINE POISONING OCCURRED BETWEEN 2005-2019 IN RIO GRANDE DO SUL, BRAZIL

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RESUMO

Introduction: Naphazoline is an over-the-counter drug of the imidazoline group, being widely used for nasal congestion and eye disorders due to its vasoconstrictor potential. It is a drug of local action, having its therapeutic effects in minutes. However, in higher doses, with its agonist action on α 2-adrenergic and imidazoline receptors, it can cause systemic clinical manifestations, such as drowsiness, bradycardia, hypothermia, sweating, and hypotension. The use of naphazoline is contraindicated in children under six years of age, being the group of individuals with the highest number of reports in literature of intoxications with the medication.

Objectives: This work aims to trace the main characteristics of poisonings involving naphazoline attended by the Toxicological Information Center of Rio Grande do Sul (CIT/RS) between 2005 and 2019. **Methods:** Were evaluated all cases of poisoning involving naphazoline attended by CIT/RS over a 15-year period (from 2005 to 2019). Data were collected from the CIT^{online} system using IBM[®] Cognos Analytics software. The variables studied were age, sex, circumstance, route of exposure, case development, and seasonal variation. **Results:** Over the period, 1157 cases of naphazoline poisoning were recorded, with an average of 77.1 cases per year, reaching 111 cases in 2018. Of the total, 93.7% of the cases were with children under 10 years old, being the most incident age groups of 1-4 years with 673 cases (58.2%), less than 1 year with 231 cases (20%) and 5-9 years with 181 cases (15.6%). No age group above 14 years registered more than 1% of the total cases. As for the gender variable, there was no difference, with 50.2% for females, 49.5% for males, and 0.3% for ignored. The main type of exposure was an individual accident with 748 cases (64.6%), followed by administration error, with 203 cases (17.5%), and misuse, with 106 cases (9.2%). Regarding the route of exposure, two routes predominated, with 698 cases (60.3%) for the oral route and 383 cases (33.1%) for the nasal route. In the case development, 78.7% were cured and the remainder was characterized as ignored. For all seasons, winter and spring were the most incidents with 28% and 27.1% respectively, considering that they are the seasons with the lowest temperatures and the highest prevalence of respiratory problems. Commonly, autumn and summer represented 24.5% and 20.3%. **Conclusion:** Naphazoline poisoning has progressively increased in Rio Grande do Sul state. The results of the cases analyzed show a profile of the affected patients, a child under 10 years of age with an individual accident. In addition, high numbers of misuse and administration error, often resulting from ignorance by those responsible for contraindication of age using naphazoline. As the Rio Grande do Sul state has cold and harsh weather in winter, ends up concentrating respiratory problems, such as influenza and allergic processes, thus increasing the use of nasal decongestants, and consequently, the numbers of intoxications. Therefore, the data serve as a basis for toxicovigilance, assisting in the

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synthesis of educational policies.

PALAVRAS-CHAVE: Epidemiology, Naphazoline, Poisoning

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