

# INCIDENCE AND MANAGEMENT OF ETOPOSIDE HYPERSENSITIVITY IN PAEDIATRIC PATIENTS

**AUTHORS:** N. BÁEZ GUTIÉRREZ<sup>1</sup>, H. RODRIGUEZ RAMALLO<sup>1</sup>, C. ALVAREZ DEL VAYO BENITO<sup>1</sup>, B. FERNÁNDEZ RUBIO<sup>1</sup>.

1-VIRGEN DEL ROCÍO UNIVERSITY HOSPITAL, PHARMACY, SEVILLE, SPAIN.

## Background and importance

There is conflicting data in the literature regarding incidence of etoposide hypersensitivity reactions in adults and children ranging from 2% to 51%.

## Aim and objectives

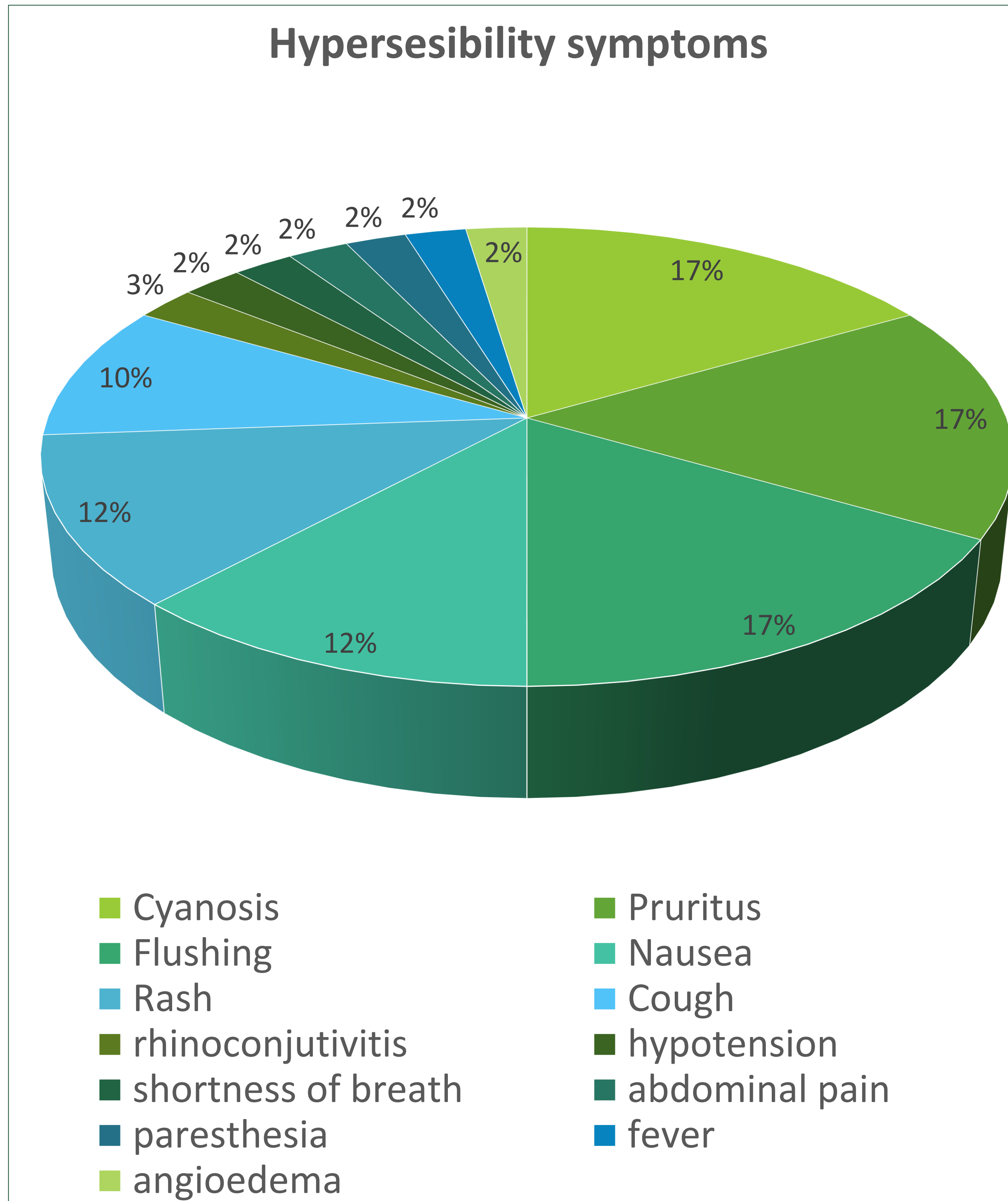
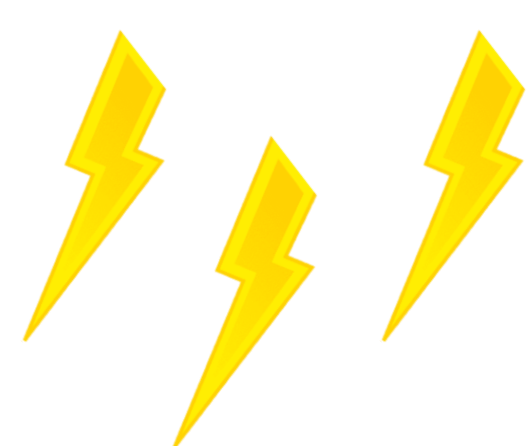
- To assess etoposide hypersensitivity incidence
- To evaluate potential risk factors for hypersensitivity in paediatric patients

## Material and methods

- **Design:** Retrospective observational study
- **Study period:** June 2013- September 2020.
- **Variables:** demographics, diagnosis, dose, infusion rate, infusion concentration, symptoms of hypersensitivity, CTCAE grade of hypersensitivity reaction and management of hypersensitivity reaction.
- **Population:** paediatric patients treated with etoposide

## Results

- **Patients included:** 213
- **Median age:** 6.75 (0.16-17) years
- **Male:** 58.68%
- **Hypersensitivity reactions:** 23 (10.8%) patients
  - **CTCAE grade I:** 3 patients
  - **CTCAE grade II:** 20 patients
- **Range doses:** 200-100 mg/m<sup>2</sup>; 2.5-6 mg/kg.
- **Median infusion rate:** 55 (2-200) mg/h.
- **Median concentration:** 0.3 (0.2-0.5) mg/ml.
- All hypersensitivity reactions were **successfully managed** with medication (corticoids and antihistaminic).
- Subsequent doses were administered with **premedication** and **reduction of the infusion rate.**



## Conclusion and relevance

- Incidence of hypersensitivity reaction was moderate, all hypersensitivity reaction were mild being resolved by standard treatment.
- We were unable to establish the variables collected as risk factors for hypersensitivity reactions. Other studies have observed a relationship between the rate of infusion and the concentration of etoposide.