INCIDENCE AND MANAGEMENT OF ETOPOSIDE HYPERSENSITIVITY IN PAEDIATRIC PATIENTS

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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.
• Population: paediatric patients treated with etoposide
• Variables: demographics, diagnosis, dose, infusion rate, infusion concentration, symptoms of hypersensitivity, CTCAE grade of hypersensitivity reaction and management of hypersensitivity reaction.

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/m²; 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.