



Infusion of Venofundin® 6% or Tetraspan® 6% in Paediatric Patients aged up to 12 Years

B. Braun Melsungen AG, Hospital Care, Clinical Development

Background: Hydroxyethyl starch (HES) 130/0.42 (Venofundin® 6%, Tetraspan® 6%) is a recognized colloid for the treatment and prophylaxis of hypovolaemia. However, data in children are still limited and therefore, HES 130/0.42 should be used with caution. In order to substantiate the knowledge of HES 130/0.42 in this population the present study investigates on the safety of HES 130/0.42 when used in routine clinical practice in children.

Methods: This is a prospective, multicentric, international, non-interventional (observational) post-authorisation safety study. The study includes children up to the age of 12 years who undergo elective surgery with ASA-class \leq III and who are scheduled to receive HES 130/0.42 (Venofundin® 6% or Tetraspan® 6%) for perioperative plasma volume replacement therapy. The administration of HES 130/0.42 is determined by the respective summary of product characteristics. The primary objective is to investigate on the frequency of adverse drug reactions in children. Secondary objectives are based on routinely measured clinical and laboratory parameters (e. g. haemodynamics, blood coagulation, electrolytes, blood gas analysis, use of blood products). At least 1000 patients will be documented in order to identify adverse reaction which occur with a frequency of at least 0.3% with the option to recruit maximally up to 1500 patients which allows the detection of adverse reactions with 0.2% frequency. A planned interim analysis is performed after about 300 patients which enables to detect an adverse drug reaction with an occurrence of 1%.

Preliminary results: The intended number of at least 1000 patients has been reached by end of 2008. In addition to the planned interim analysis on more than 300 patients a preliminary evaluation on over 900 children is presently available. Active recruitment has been performed in 10 centres (4 in Germany, 2 in Netherlands, 2 in Czech Republik, 1 in Italy and 1 in Austria). About 60 percent received Venofundin® 6% while the other 40 % received Tetraspan® 6%. The age of the children ranged from 0 days (i. e. inclusion at day of birth) to 12 years and also preterm infants were included. Moderate doses were usually administered (mean \pm SD: 12 ± 7 ml/kg bodyweight/d) ranging from 1 ml/kg bodyweight/d up to 65 ml/ kg bodyweight/d. Of the preliminarily evaluated patients one serious adverse event was reported with no causal relationship but caused by surgical intervention (surgical bleeding). Only few adverse events (non-serious) were reported which were mainly in the Venofundin® 6% cohort. Dosing in these cases was above average (mean \pm SD: 27.3 ± 9.9 ml/kg bodyweight/d) and included haemodilution, acid-base imbalance, oedema, allergic reaction and PONV. Only for haemodilution a causal relationship has been assessed by investigators with a frequency which one would expect ($< 1/10$ - $> 1/100$).

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