

## BP\_P005

### EFFECTIVENESS AND SAFETY OF LOW-DOSE DIAZOXIDE IN TRANSIENT HYPERINSULINEMIC HYPOGLYCEMIA

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#### INTRODUCTION

Diazoxide is an effective treatment for hyperinsulinemic hypoglycemia (HH), though its dosage for the transient form of HH is not well established. Recently, a Singapore cohort reported effective low-dose diazoxide in treating HH secondary to small for gestational age (SGA). We aim to study the effectiveness and safety of this low-dose regimen in transient HH.

#### METHODOLOGY

This was a retrospective cohort study. All infants diagnosed with transient HH and treated with diazoxide between 1 January 2024 and 31 December 2025 were included. The primary objective was to determine the effective diazoxide dose in maintaining euglycemia (blood glucose  $\geq 3.5$  mmol/L). The secondary objective was to monitor complications following diazoxide usage.

#### RESULTS

A total of 21 infants were recruited with a median gestational age of 37 weeks (IQR: 35–37.5) and a median birth weight of 1,980 grams (IQR: 1,670–2,340). The risk factors were SGA (71.4%,  $n = 15$ ), infants of diabetic mothers (19%,  $n = 4$ ), and others (14%,  $n = 3$ ). A median glucose infusion rate of 12.6 (IQR: 10.4–14.5) mg/kg/minute was required to treat the hypoglycemia. Eleven infants (52.3%) required adjunct glucagon therapy before transitioning to diazoxide therapy, with a median dose of 8 mcg/kg/hour (IQR: 7–12).

Diazoxide was initiated at a median of 20 days of life (IQR: 14–30), with a median starting dose of 3.0 mg/kg/day (IQR: 3.0–3.55). Euglycemia was fully achieved in 95.2% ( $n = 20$ ) of infants within a median of 5 days (IQR: 3–9) post diazoxide initiation. At discharge, the median diazoxide dose was 3.3 mg/kg/day (IQR: 3.0–4.8). Adverse events occurred in five cases (23.8%), primarily limited to transient fluid retention ( $n = 4$ ) and gastrointestinal symptoms ( $n = 1$ ). None developed echocardiography-proven pulmonary hypertension in this cohort.

#### CONCLUSION

Low-dose diazoxide (3–5 mg/kg/day) is effective and well-tolerated for managing the transient form of HH in our setting. This benefit appears not to be limited to babies born with SGA, but may extend to other risk factors as well.