

The influence of IgM-enriched immunoglobulin therapy on neonatal mortality and hematological variables in newborn infants with blood culture-proven sepsis

Letizia Capasso, Francesco Raimondi

Neonatal Intensive Care Unit, Department of Pediatrics, University of Naples "Federico II," Naples, Italy.
E-mail: letizia.capasso@gmail.com

To the Editor,

We read with great interest the report of Dr. Abbasoglu and colleagues of a 49% mortality reduction in 31 neonates with proven sepsis treated with IgM enriched intravenous immunoglobulins (IgMeIVIGs) in addition to the standard antibiotic regimen compared to 32 controls¹. We, too, observed that IgMeIVIGs significantly reduced short-term mortality in a similar cohort of babies². Surprisingly, our Turkish colleagues draw the conclusion that IgMeIVIGs are not an effective adjuvant therapy simply because their data do not meet the set threshold for statistical significance. This result is rather due to the lack of sufficient power in the study.

In a post hoc analysis for the setting described by Dr. Abbasoglu, the study power is only 35%. We also calculate that to reach a power of 80% and α error = 0.05 for the same mortality reduction, a minimum of 97 patients need to be enrolled in each group.

Indeed, both reports clearly point toward the sound possibility that IgMeIVIGs are an effective and badly needed adjuvant therapy for neonatal sepsis in an era of rampaging resistance to antibiotics. The only way to solve this enigma is a properly designed prospective trial, to which we invite Dr. Abbasoglu and collaborators. Until then, we offer a word of caution against hasty conclusions that may severely affect the chances of healing our sickest and most fragile patients.

REFERENCES

1. Abbasoğlu A, Ecevit A, Tuğcu AU, et al. The influence of IgM-enriched immunoglobulin therapy on neonatal mortality and hematological variables in newborn infants with blood culture-proven sepsis. *Turk J Pediatr* 2014; 56: 267-271.
2. Capasso L, Borrelli AC, Parrella C, et al. Are IgM-enriched immunoglobulins an effective adjuvant in septic VLBW infants? *Ital J Pediatr* 2013; 39: 63.