



"A review of the effect of erythropoietin on the prognosis of infants with birth asphyxia"

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Abstract

In newborns, the number of circulating red blood cells decreases after birth. In preterm infants, this rate of reduction worsens with frequent bleeding, which may require monitoring of the infant's clinical condition. Therefore, preterm infants are more likely to require red blood cell transfusions. Low levels of erythropoietin (EPO), a substance in the blood that stimulates the production of red blood cells in premature infants, provide a rationale for using EPO to prevent or treat anemia. EPO can be given "early" (before the baby is eight days old) to prevent or reduce the need for red blood cell transfusions. Growing evidence suggests that EPO may protect against neurodegenerative and intestinal damage. Early treatment with EPO reduces the number of red blood cell transfusions and blood donor encounters after its use. However, the overall benefit of EPO may not be clinically significant because many of these infants had received red blood cell transfusions before entering the trial. Early treatment with EPO does not alter the risk of death or retinopathy of prematurity and may reduce the risk of neurological and intestinal damage. It may also improve long-term outcomes. According to the Grading of Recommendation, Assessment, Development and Evaluation (GRADE) approach, the quality of the main outcomes was in the range of high to low.

Keywords: Premature baby, asphyxia, erythropoietin

Result:

Based on studies, it has been shown that early treatment with EPO can reduce the number of red blood cell transfusions and blood consumption. However, total EPO may not be clinically significant because these infants were exposed to red blood cell transfusions before entering the trial. Early treatment does not alter the risk of death from EPO or retinopathy of prematurity and may compromise and damage the nerve. It may also improve long-term outcomes.

References

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