Glucocorticoids for premature labour in low resource countries: Is the debate over?

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Madam, preterm birth (PTB) is one of the leading causes of neonatal (0-27 days) death in the world.[1] The use of glucocorticoids has proven to be beneficial in expecting mothers who are at a high risk of PTB. The utilisation of glucocorticoids reduces the occurrence of neonatal respiratory distress, intraventricular haemorrhage, necrotizing enterocolitis, early neonatal infection, and death which are common complications of PTBs.[2]

A study[3] Antenatal Corticosteroid Trial (ACT) reported worrisome findings and insinuated that the usage of glucocorticoids was causing more harm than benefit in low resource settings. It was reported that the mortality rate increased amongst patients who were administered glucocorticoids, when compared to the placebo group (3-5 more deaths per 1000).[3]

This raised a few concerns and conceivably warranted a new study targeting around 3000 pregnant women from low resource settings which revealed that in the dexamethasone group (an antenatal glucocorticoid), there were 4% fewer deaths than the placebo group and that a single infantile death can be avoided by giving dexamethasone to 25 women. Furthermore, the prevalence of stillbirths, maternal bacterial infection and infantile deaths due to respiratory distress syndrome was appreciably lower in the dexamethasone group than the placebo group.[4]

Unlike ACT, the recent trial included patients for whom treatment was guaranteed and minimum level of neonatal care was available. The substantially lower PTBs in ACT suggest overtreatment, a possible reason for the harm observed.[4]

As of the last update in 2017, death due to prematurity is 0.36% in Pakistan.[1] This can be attributed to physical and emotional stress, periodontal disease, low haemoglobin levels, previous history of preterm delivery, and poor maternal nutritional status during the period of gestation.[5] Dexamethasone can be an important intervention for improving PTB outcomes in Pakistan as the new clinical trial conducted in low income countries including Pakistan concludes that it "boosts survival of premature babies when given to pregnant women at risk of preterm birth in low-resource settings."[4] It is an inexpensive drug which attributes majorly to its usefulness in Pakistan. Cost effective strategies along with careful identification of women who are true candidates for this drug intervention will surely pave the way to reduce the alarming number of PTB and consequently, their complications bore by the mother and the neonate. Thus, we can hope to witness promising results if careful planning is devised regarding dexamethasone usage in obstetrical settings.

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