

respectively. Even in the absence of myocardial failure, effective ventilation of the lungs with a high oxygen concentration may correct acidosis by lowering PaCO₂, oxygenating the blood and adequately dilating the pulmonary vascular bed(3). Hence the use of room air for both the above situations is not justified.

2. The study included preterm babies also where Sarnat and Sarnat staging was done for documenting HIE which can only be used for babies over 36 weeks of gestation(4).
3. Median apgar score at 1 minute is 3 each in room air and 100% oxygen group as per *Table II*, whereas in the text it has been stated that room air group had significantly higher 1 minute apgar score than 100% oxygen group.
4. As treatment failure, overall mortality, HIE and asphyxia related mortality are higher in both the groups, it seems that either of two modalities of treatment are not ideal. Perhaps better may be lying in between the two *i.e.*, room air and 100% oxygen. As 100% oxygen has been noted to be associated with a variety of adverse reactions including increased generation of free radicals, decreased central nervous system sodium potassium ATPase function and decreased dopamine metabolism(5).

**K.K. Locham,
Manpreet Sodhi,**
*Department of Pediatrics,
Government Medical College and
Rajindra Hospital,
Patiala 147 001, India.*

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Resuscitation of Asphyxiated Newborns: Reply

1. At the outset of the article it was mentioned that this was a quasi-randomized trial. It is an acceptable statistical method. Three other previous trials, 2 using the same quasirandomization method(1,2) and one a randomized trial(3) have similar results. There is no reason the results should be different, since asphyxia itself is a random event.
2. The use of 4 L/min was standardized in an earlier trial(1), wherein it was observed to deliver 100% oxygen.
3. The use of 5-min apgar score may not have been the best primary outcome variable but is physiologically not incorrect. Besides, important secondary variables such as HIE and mortality were also

measured which were similar in both groups. The initial baseline parameters including Apgar scores were comparable in the sub-set of infants who were later termed as treatment failures and so were their subsequent hear rate and Apgar recoveries (inspite of the RAR infants being switched to 100% oxygen). The comment regards resuscitation personnel being biased, is purely conjectural. Besides RAR and OR groups had similar number of infants undergoing intubation and chest compressions.

4. The sample size calculations for equivalence trial using a delta of 0.5 and sigma of 1 at 95% power was about 420. Therefore this trial had sufficient sample even to test an equivalence hypothesis.
5. The lower limit of any variable cannot be deduced from means and SD. In the present study there were about 60 infants with birth weights <math><1800</math> g.
6. Statistical difference in medians is due to the differences in the range inspite of similar medians and 95 centile values.
7. Even though the original description of HIE by Sarnat were for term infants, subsequent modifications of the same have been used for preterms. There were 12 preterms (14.6%) in the oxygen and 19 (25%) in the room air groups classified as

having HIE. In spite of this, the final results were comparable and therefore using the Sarnat's HIE staging probably is not inappropriate even for preterms.

8. It has also been concluded in the study that since the preterm subset in the study was small, the conclusions of this study are essentially for term infants.

S. Ramji,

N.C. Saxena*,

Department of Pediatrics,

Maulana Azad Medical College, New Delhi

and

**Division of Reproductive Health and*

Nutrition

ICMR, New Delhi 110 029,

India.

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