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bilateral involvement with more severe wasting on the right side. The 'oblique atrophy' referred to is due to the wasting of the forearm and hand muscles with sparing of the brachioradialis.

- 3. We agree that the disease is uncommon in females. However, female sex alone does not exclude the diagnosis.
- 4. The disease usually presents in teens or early twenties and the earliest reported age at onset is 10 years, as mentioned in the text. The purpose of the case report itself was to comment on the early age of presentation and to speculate on the possible role of lead in accelerating the rate of disease progression (and thereby an early onset).
- 5. Hirayama, *et al.* studied 73 consecutive patients with the disease by myelography, CT-myelography and MRI(3). In neutral neck position, MRI could detect mild to moderate atrophy of lower cervical cord in only 49% of the patients (23 of 47).

Genetic analysis of patients with distal upper limb spinal muscular atrophy has been previously carried out(4). In four patients of this disease which were studied, no homozygous deletions of exon 7 and 8 of the SMNtel gene were found, and no deletions in exon 5 of the NAIP gene were detected. The diagnosis is essentially clinical supplemented by results of electrophysiological investigations and muscle biopsy. Even though the parents were unwilling to go for further tests, we think that genetic studies would not have been of any help in the diagnosis.

We have discussed the possibility of elevated lead being a coinedental finding. Chelation therapy was offered but refused by the parents.

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- Hirayama K, Tokumaru Y. Cervical dural sac and spinal cord in juvenile muscular dystrophy of distal upper extremity. Neurology 2000; 54: 1922-1926.
- Hegde MR, Chong B, Stevenson C, Laing NG, Khadilkar S, Love DR. Clinical and genetic analysis of four patients with distal upper limb spinal muscular atrophy. Indian J Med Res 2001; 114: 141-147.

# Resuscitation of Asphyxiated Newborns(1)

We read with interest your article(1). We feel the conclusion should be interpreted with caution due to the following reasons:

## Methodology

1. Use of date-based method of randomization is not a strict randomization procedure. This issue should not be brushed aside by authors as 'lacunae for purist'. If a proper randomized control trial would have been done, the results could have been different. Similarity of results of

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this study to previous studies is not the test of robustness of this study.

- 2. Use of flow rate of 4 L/min was not justified, when standard practice guidelines for neonatal resuscitation recommends at least 5 L/min of flow rate(2).
- 3. Use of Apgar score at 5 min is probably not be the best primary outcome variable. Grimace and tone are normally not tested at 1 min and 5 min if baby requires active resuscitation at these time points. It is mentioned, of the two persons present at each delivery, one person only monitored the time and outcome measured. However, if both the residents get involved in resuscitation in a difficult case, or if there is only one resident at time of deliver (not uncommon), the apgar recording will be on subsequent recall. Then one is not sure of the time as well as the actual Apgar score. Also, the 5 minute Apgar could be affected by 100% oxygen, which was delivered to all the babies who 'failed treatment' in room air resuscitation (RAR) group. This cannot be accounted for by intention to treat analysis. So, these babies should have been excluded at the time of analysis. Moreover, there can be significant inter rater variability among different residents, in recording Apgar scores within and between different centers.
- 4. Sample size calculation: This seems to be done as for superiority trial. However, the hypothesis and conclusion in abstract stated is that of equivalence trial, which would have required much larger sample size.
- 5. Statistical analysis: Cluster adjustment for each center should have been done, as the data is not one random sample, but collated data from four centers.

## Results

- 1. If 1 min Apgar score in RAR group was significantly higher, it could mean this group had babies with less severe asphyxia. In absence of data on cord pH, it is difficult to say that babies in 2 groups had suffered comparable asphyxia to begin with. Comparable Apgar score at 5 min could mean that use of RAR caused some harm to the babies and their Apgar score became comparable at 5 min. It is possible that the residents were so unconvinced of RAR that they used 100% oxygen when baby was severely asphyxiated or was born to some parents known to the residents/doctors in that hospital. This could account for lower Apgar score in 100% oxygen group.
- 2. Results presented in *Table 2* are not clear. Example, though authors mention there is significant difference in 1 minute Apgar Scores in the two groups, the median and range mentioned in the table are identical. Similarly, though the median and 5-95 centile values of 'time to first cry' and' duration of resuscitation' are almost similar, the p value is highly significant.
- 3. Total number of live births and number of babies who required intubation and chest compressions in the two groups was not mentioned. Since the study was completed six years ago, data on follow up of the babies in the two groups should also have been mentioned.

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asphyxiated newborns with room air or 100% oxygen at birth: A multicentric clinical trial. Indian Pediatr 2003; 40: 510-518.

# Resuscitation of Asphyxiated Newborns(2)

I have following comments to offer in respect of this excellent multicentric study(1),

- 1. The inclusion criteria included newborns weighing more than 1000 grams. A look at the baseline neonatal variables shows that on taking mean birth weights and standard deviation into account, there were no babies below a birth weight of 1800 grams. Were no such babies delivered; as there is no mention about their exclusion?
- 2. Hypoxic Ischemic encephalopathy (HIE) is defined clinically on the basis of a constellation of findings, including a combination of abnormal consciousness, tone and reflexes, feeding, respirations, or seizures. Staging of HIE in to Stages I, II and III describes the clinical states of asphyxiated infants over 36 weeks gestational age(2). How was the same staging system used for babies of lesser gestational ages?

## **Resuscitation of Asphyxiated Newborns(3)**

- We have the following comments to offer on the recent article(1) on this subject:
- 1. The room air group in treatment failure was switched over to 100% oxygen

- 2. Kattwinkel J. Use of Resuscitation Bag and Mask. *In:* Textbook of Neonatal Resuscitation. 4th Edn. 2000; 3.1-3.44.
- 3. There is no record of cord blood pH, a significant indicator of perinatal asphyxia.
- 4. A significant number of neonates including preterm neonates who develop hyaline membrane disease are dependent on Oxygen from the time of birth. The recommendation about resuscitation with room air may not be applicable to this group of neonates.

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supplementation after 90 seconds of resuscitation. According to international guidelines for neonatal resuscitation 2000(2), some of the babies in room air group might have received external cardiac massage by then. Generally myocardial failure does not occur until both pH and  $PaO_2$  are extremely low, approximately 6.9 and 20 mm of Hg,

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