

Malondialdehyde Level in the Cord Blood**Beuy Joob^{*1}; Viroj Wiwanitkit²**

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Dear Editor

The recent report on "Malondialdehyde Level in the Cord Blood" bring some interesting point to be discussed [1]. Gülbayzar et al. concluded that "malondialdehyde level in umbilical cord blood could serve as an indication of perinatal oxidative stress [1]" This summary might be correct, however, there are some points to be considered. First, there are many factors that can induce the oxidative stress and this should be completely investigated before suggesting that the measurement of malondialdehyde level can be useful for prevention. Second, there is no information on quality control of all analyses in this report. Finally, it should also be noted that gestation age and mode of delivery can affect the test level. This should be kept in mind when one considers to use the test in actual clinical practice [2].

References

1. Gülbayzar S, Arica V, Hatipo lu1 S, et al. Malondialdehyde level in the cord blood of newborn infants. *Iran J Pediatr* 2011;21(3):313-9.
2. Mocatta TJ, Winterbourn CC, Inder TE, et al. The effect of gestational age and labour on markers of lipid and protein oxidation in cord plasma. *Free Radic Res* 2004;38(2):185-91.

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Author's Reply, Malondialdehyde Level in the Cord Blood**Vefik Arica*, MD**

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Dear Beuy Joob

There are many Factors that induce the oxidative stress of life. This is a well-known information. In this study, we worked on certain factors. It is not possible to work with all risk factors. You can show in a few studies.

In this study, we aim to demonstrate that measurement of the malondialdehyde (MDA) level in the umbilical cord blood of newborn infants born via caesarean section and normal vaginal delivery is indicative of oxidative stress during the perinatal period. We concluded that the malondialdehyde level in umbilical cord blood could serve as an indication of perinatal oxidative stress [1].

In one study, the role of perinatal distress on the production of oxygen radicals and on lipid peroxidation was demonstrated by an increased MDA level, regardless of gestational age, in babies delivered via caesarean section compared to babies born via spontaneous vaginal delivery [2].

We think that the MDA level in umbilical cord blood is an important indicator of perinatal oxidative stress. We just wanted to remind pediatricians.

References

1. Gülbayzar S, Arica V, Hatipoğlu S, Kaya A, Arica S, Karatekin G. Malondialdehyde level in the cord blood of newborn infants. *Iran J Pediatr* 2011;21(3):313-9.
2. Buonocore G, Zani S, Perrone S, et al. Intraerythrocyte nonprotein-bound iron and plasma malondialdehyde in the hypoxic newborn. *Free Radic Biol Med* 1998;25(7):766-70.

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