

## عنوان مقاله:

Effect of Umbilical Cord Ferritin Level on Auditory Brainstem Response Threshold in Newborns

## محل انتشار:

مجله علمی گوش و حلق و بینی ایران، دوره 32، شماره 2 (سال: 1399)

تعداد صفحات اصل مقاله: 6

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## خلاصه مقاله:

**Introduction:** Iron plays an important role in myelination. Ferritin is a reliable indicator of the tissue iron store and umbilical cord ferritin level reflects the in utero iron stores. Objective is to study the effect of the umbilical cord ferritin level on the ABR recording in the newborn. **Materials and Methods:** The study was conducted in a tertiary care hospital in India with a sample of 250. The study group was divided into Group A (with umbilical cord ferritin level of  $\leq 75\text{ng/ml}$ ) and Group B (umbilical cord ferritin level  $> 75\text{ng/ml}$ ). Correlation analysis was carried out to study the relation between ferritin level and latency of wave I, III and V. Two sample t test was done between the two groups to study the significance of latency and amplitude of various ABR waves. **Results:** There was no correlation between the ferritin and ABR threshold as well as latency and amplitude of ABR waves. A significant prolongation of the absolute latency of wave V and the interwave latency of III – V and I – V of both the ears was found in Group A. The amplitude of the ABR waves did not show any statistical difference between the two groups. **Conclusion:** Ferritin levels effect the latency of wave V of ABR and this may be attributed to slow conduction time secondary to altered myelination. Measurement of serum ferritin may be considered as a routine protocol in newborn babies after delivery .or before discharge from hospital

## کلمات کلیدی:

amplitude, Evoked response audiometry, Ferritin, Iron, Myelination, New born, Wave latency, Umbilical cord blood

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