Readers' Forum

Need for Routine Vitamin E Supplementation in Preterms

Q. *In preterm infants, deficiency of vitamin E is reported to be associated with hemolysis and anemia. Should all preterms, therefore, receive vitamin E supplementation?*

C.R. Dass,
H.No. 10-3-85/9,
East Maredpally,
Secunderabad 500 026, A.P.

A. Human milk provides sufficient amounts of vitamin E and adequate alpha-tocopherol/polyunsaturated fatty acid ratio for low birth-weight and preterm infants. The differences in hemoglobin levels between infants unsupplemented and those receiving routine supplementation (5-20 mg/day) is not significantly large enough to recommend routine supplementation of vitamin E in preterms receiving human milk(l). Infants receiving non-human formulas which have atleast 0.6 mg/100 K cal vitamin E and an alphatocopherol/polyunsaturated fatty acid ratio of 0.9 mg/g also don't need any vitamin E supplementation. In the remaining preterm infants, it would be judicious to supplement 20 IU/day of vitamin E till they reach a past-conceptional age of 36 weeks.

Siddarth Ramji,
Professor,
Department of Pediatrics,
Maulana Azad Medical College,
New Delhi 110 002.

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Sunlight Exposure in Young Infants

Q. *In a developing country like India, solar heat is used for warming the body in winter season. In this context, considering the possibility of hazards of solar radiation(1), what advise should be given to mothers regarding routine exposure of infants and neonates to sunlight.*

S.M. Tripathi,
Jr. H.I.G. 1914 A,
7 Acre B.D.A. Scheme,
Sakert Nagar,
Bhopal 462 024.

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A. The therapeutic benefits and ill-effects of solar radiations, especially related to ultraviolet spectrum are well documented(l-4). Ultraviolet rays are classified in three regions according to wavelength (UVA = 320-400nm, UVB = 320-280 nm and UVC = 280-200nm) with UVC being the worst amongst all. Radiations below 290 nm do not reach the earth due to absorption by the ozone layer. Also UV radiations are at their maximum between 10 am to

2 pm(5). The deleterious effects on the skin as well as the eye are related to both-the duration, as well as chronicity of exposure(l,4). Newborns less than one week old may be more prone to the ill effects due to the lack of stratum corneum(l).

Since the protective effect of sunlight on Vitamin D deficiency rickets is well known(l), the mothers may be advised to allow sunbathing their infants avoiding the period of 10 am to 2pm. For neonatal jaundice, similarly, the morning and evening sunlight exposure may be beneficial. During this exposure, eyes must be protected, the duration of exposure should be kept to the minimal, and if possible, allow a gap of 24 hours between two exposures so as to permit regeneration of the cells.

Anil Narang,
Javed Travadi,
Department of Pediatrics,
Post Graduate Institute
of Medical Education and Research,
Chandigarh 160 012.

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