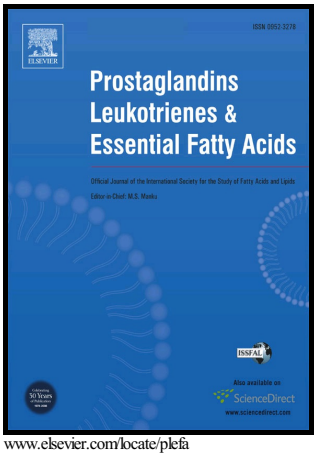

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Delta-6 desaturase activity during the first year of life in preterm infants

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Abstract

Term neonates have high delta-6 desaturase (D6D) activity, which is important for regulating polyunsaturated fatty acid's (PUFA) nutritional status. The aim was to investigate D6D activity in preterm infants and its postnatal changes. Forty-three appropriate-for-gestational-age infants were included. PUFA in red blood cells was analyzed at birth and at one, six, and 12 months of age. D6D activity was estimated by 20:3n-6/18:2n-6 ratio. At birth, preterm infants had D6D activity as high as that of term infants; D6D activity declined to about one-third at one month, then further decreased to about one-sixth at six months and remained stable until 12 months. The postnatal change in arachidonic acid exhibited a similar pattern to that of D6D