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Neonates produce lower levels of IgE compared with adults. Isotype switching to IgE production by human B cells requires a well-coordinated series of events. us IL-4 (and to a lesser extent IL-13) and the cognate interaction of B cell (CD40) with T cell (CD40L, CD154) have now been identi ed as the minimal requirements for the transcription of germline epsilon message and secretion of IgE. is study aimed at the exploration of the relation between CD4, CD19, CD23, and CD154 in fetal cord blood. EDTA blood samples were collected from the umbilical cord of premature and full term births. Adults EDTA (Ethylenediaminetetraacetic acid) blood was used as control samples. Samples were processed for owcytometry by a stain-ly method using (BD kits). e following antibodies were used for this study: anti-CD19 conjugated to APC, anti-CD23 conjugated to PE, anti-CD154 conjugated to FITC, and anti-CD4 conjugated to FITC (Fluorescein isothiocyanate). Isotype-matched controls were performed for every analysis. e percentages of CD23+ B cells in cord blood were signi cantly decreased in comparison to the adult blood. CD4+ T cells were signi cantly decreased in preterm birth while no signi cant di erence was found in full term birth cord blood and adult blood. Regarding CD 154+ cells were signi cantly lower in cord blood than adult peripheral blood. us, it is unlikely that altered expression of CD23 on B cells contributes to the low level of IgE in the neonatal circulation unless functional di erences occur or a lack of processing to the soluble form is important in regulating IgE production. However the abundance of T cells could alter the T- and B-cell interaction necessary for IgE switching by B cells and, thereby, especially wit impaired IL-4 production, limit IgE production.

Biography

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