

## **Individual cytidine deaminase and adenosine deaminase variations in high homogenous group of healthy persons**

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**Rationale.** Cytidine deaminase (CDA) and adenosine deaminase (ADA) both plays great role in immune response and its regulation and can be considered as extremely high variable individualized immunologic parameters even in unified groups.

**Methods.** For homogeneous group of healthy volunteers without any systemic somatic pathology (n=33, age 18-31 with mean 24±2, M:F ratio 4:1) simultaneously were measured serum CDA and ADA levels (by the method of Guisti and Gallanti with prolonged incubation time), immunoglobulin heavy chain (IHC) gene rearrangement status (Langerak and van Dongen method) and CD8+, CD19+ cell number (by flow cytometry).

**Results.** On the background of physiologically CD8+ and CD19+ cell number and normal polyclonal IHC gene rearrangement status serum CDA level manifested itself as high variable parameter with vibration amplitude from 0,58 IU/l to 4,91 IU/l (with mean 1,82±0,36 IU/l). Also ADA ranged from 4,01 to 25,97 IU/l with mean 11,94±1.92 IU/l.

**Conclusions.** So against the background of similar physiological and immunological status of these unified healthy persons we have more than 6-fold variation in CDA and ADA serum levels. Hence these two may great potential to be a «all else being equal» biomarker in individually-related infection response and patients with risk of hidden immunodeficiency status.

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