Primary immunodeficiency diseases (PIDs) are a topical problem of modern clinical immunology. The most common is a congenital humoral immunity. The prevalence of such a PID as common variable immunodeficiency (CVID) according to domestic and foreign authors is 1:25000 – 50000 [1], but a selective immunoglobulin A deficiency (sIgAD) is 1:163 people in the world [2]. Primary immunodeficiency with a defect of humoral arm is characterized by a high incidence of chronic respiratory and gastrointestinal diseases [3], severe allergic disorders [4], development of recurrent parasitic infestations, malabsorption syndrome and celiac disease [5], as well as the development of different autoimmune and cancer [6]. Despite the urgency of this problem, so far there is no single point of view on the etiopathogenesis of this disease and approaches to treatment and control of these forms of immunodeficiency.

Materials and Methods. We have identified several groups of patients during our work. 49 patients were surveyed in general aged 18 to 60 years with a diagnosis of immunoglobulin A deficiency and common variable immunodeficiency, observed at the PIDs Center in Saint-Petersburg Pasteur Institute. The control group consisted of 25 healthy persons. All the patients underwent the immunological testing, which included determination of concentration of immunoglobulins in the blood serum, nasopharyngeal swabs and urine, as well as full of lymphocytes and their subpopulations.

Results. When conducting the research, we have identified the different clinical forms of the course of the immunoglobulin A deficiency (patients with mainly chronic diseases of the respiratory system - 16, and patients with autoimmune pathology - 10). Laboratory studies have shown that the concentration of immunoglobulin A in nasopharyngeal swabs in the patients with immunoglobulin A deficiency was reduced to 14.6 mg/l (concentration at healthy persons is 37.5±4.2 mg/l), and the level of immunoglobulin M increased sharply to 8.4 mg/l (concentration at healthy individuals was 1.6±0.8 mg/l). Although the concentration of IgA in the serum is reduced to 0.04 g/l in healthy persons is 37.5±4.2 mg/l), and the level of immunoglobulin M increased sharply to 8.4 mg/l (concentration at healthy individuals was 1.6±0.8 mg/l). The revealed changes require the further study and the statistical treatment that is planned in our work.

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Keywords: Traumatic brain injury, immunology, T helper subsets.

References: