

## C17. ANAEMIC SYNDROME IN THYROID DISEASES.

*I. Constantinescu, D. Voicu, F. Vladareanu*

The National Transfusion Haematology Institute

**Purpose of the study:** we have studied the incidence of the anaemic syndrome in thyroid diseases, and also established different etiologies of anaemias.

**Patient and method:** we have studied 24 patients, that were investigated in the department of Haematological Diagnosis of the National Transfusion Haematology Institute during one year (July 2013 – July 2014), after having been investigated in different Endocrinology clinics for various thyroid diseases. In these patients, we have followed: the levels of haemoglobin and packed volume, the mean corpuscular volume (MCV), the aspect of the peripheral blood smear, serum iron and vitamin B12 (cyanocobalamin), Coombs test.

**Results:** Patients. Aged between 29 and 82 were mostly females (only 2 male patients!). Half of the cases were already diagnosed as chronic autoimmune thyroiditis, having ... levels of anti-thyroperoxidase; the other cases were: hypothyroidism, hyperthyroidism, Basedow disease, toxic goitre, a.s.o. Thyroid diseases preceded with one to thirty years the onset of anaemia. A part of the patients were already under L-thyroxine therapy when joining our department.

Anaemia was slight in most cases (Hgb levels over 10 g/dl in 19 patients), average in 3 cases (Hgb between 8-9 g/dl) and severe only in 2 cases anaemia was macrocytic (MCV between 95-125 fL), with a suggestive peripheral blood film (macrocytosis, poikilocytosis, polichromatophilia, sometimes hypersegmented neutrophils); 14 cases had low levels of serum cyanocobalamin / between 83-161 pg/mL); we mention a few cases with a suggestive smear but with normal levels of cyanocobalamin, in which we decided surveying these levels every 2 years.

As additional haematological .. we mention: iron deficiency (6 cases), myelodysplastic changes (2 cases), autoimmune haemolytic anaemia (2 cases); 2 cases associated leucopenia and 3 cases thrombocytopenia. Associated diseases: 2 cases of coeliac disease, 2 of hereditary spherocytosis and 1 case of psoriasis.

### **Conclusions:**

1. The association of thyroid diseases and anaemia is much more frequent in females and affects all ages
2. thyroid disease usually precedes the onset of anaemia
3. Most frequently anaemia is macrocytic-megaloblastic and consists in cyanocobalamin deficiency
4. Patients with thyroid diseases need periodical surveying of cyanocobalamin levels.