

SIDE EFFECTS OF TREATMENT WITH THYROSTATICS

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The authors report their results from the study of 118 patients with thyrotoxicosis treated in Clinic of Endocrinology, Department of Endocrinology and Gastroenterology in 1996-1997. The treatment with thyrostatics has a number of side effects, most common of which are leukopenia, allergic reactions, and liver disorders. The complications depend on the dose of the drug, the duration of its application, the preliminary leukocyte count, and the state of the liver. The treatment with Propycil shows less frequent side effects than that with Metizol. With L-Thyroxin included in the therapy the goitrogenic effects and drug-induced hypothyroidism are prevented. Propycil (Solvay Pharma) is preferable because of its quicker initial and clinical effect in the treatment of thyrotoxic crisis, in pregnancy, and preoperative preparation.

Key-words: Thyrotoxicosis, Metizol, Propycil, side effects, leukopenia, allergic reactions

Thyrotoxicosis is one of the widespread endocrine diseases. Its treatment takes time, requires extensive medical experience and cooperation by the patient. The doses of the treatment, its duration, side effects and necessity of radical behaviour are still under discussion (1,3). Our goal was to study the side effects of the treatment of thyrotoxicosis with thyrostatics.

MATERIAL AND METHODS

A total of 118 patients with thyrotoxicosis treated at the Clinic of Endo-

crinology, Department of Endocrinology and Gastroenterology, Medical University of Varna in 1996-1997 were analyzed. They were 20 male and 98 females. Male:female ratio was of 1:4,9. Predominant age of the male patients was between 45-49 years and of female ones - 26-59 years. The diagnosis was determined based on clinical picture, tests of total T₃ and T₄, TSM, ultrasound of thyroid gland, scintigraphy, and in some patients - on TRM-test. The treatment was undertaken with preparations of the Methylmercaptoimidazol group - Metizol and Propylthyouracil. In most cases the starting dose of Metizol was 30 (40) mg and of Propycil (Solvay Pharma) - 200 (300) mg daily. With Metizol were treated 101 patients and with Propycil 50 ones (17 of

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them from the beginning and 33 as a result of side effects to Metizol). Of the 118 patients, 98 suffered from Grave's disease, 18 from Mashitoxicosis, and 12 from toxic nodular goitre.

RESULTS AND DISCUSSION

After defining the diagnosis we started the treatment with Metizol in most cases. Initial reaction to this medicine was observed after 6-7 days and clinical one after 10 days. Seventeen cases were treated with Propycil since the beginning. In these cases the initial reaction started on the second day and after a week an objective improvement of symptoms was registered. Based on these observations we prefer Propycil in the treatment of patients with thyrotoxic crisis, during preoperative preparation, and in pregnancy.

It is known that, in pregnancy, Metizol crosses the placenta more readily than Propycil (2). Allergic reaction was observed in 13 patients treated with Metizol and only in one treated with Propycil. In 3 cases it was registered at the 7th day of the treatment, in 4 - after the 20th day, and in the rest patients considerably later - after 2-3 months. After switching-over to Propycil the allergic symptoms occurred in 6 cases. In other 6 ones the full treatment was conducted after decreasing the dose, inclusion of antiallergic drugs, and in 2 cases - of corticosteroids.

In one patient only the allergic symptoms continued. The patient was prepared with Sol. Lugoli and operated under application of beta-blockers, corticosteroids, and antiallergic drugs. At the moment she is in a very good state 6 months after operation. In some cases when a dose of 2 tablets of Propycil daily was reached we returned to Metizol again which did not triggered an allergic reaction (low dose).

Twenty-six patients developed a reduced leukocytes number under $3 \cdot 10^9$ and in some case it was under $2 \cdot 10^9$ when treated with Metizol in a dose of 30 mg per day. Because of this fact in 12 out of 27 cases the treatment was changed to Propycil but in 8 ones the number of leukocytes remained still low. Leukopenia was treated with Vitamin B₆, which led to stabilization of the leukocyte number in 6 patients.

For the rest patients we had to prescribe corticosteroids in low doses. In the beginning of the treatment with thyrostatics some cases only showed a tendency to a leukopenia. The moderate decrease of the dose was enough to avoid this side effect.

In the first days of the treatment we observed an increased level of transaminases in 8 cases treated with Metizol and in one case treated with Propycil. In three of them there were data of previous viral hepatitis.

In other 4 patients transaminase levels increased before the treatment with

thyrostatics began. Two patients were investigated in the Clinic of Gastroenterology for liver pathology and it was found out that they were cases of hepatitis reactive to thyrotoxicosis. In all of the above mentioned cases a treatment with Propycil and hepato-protective therapy was chosen. Only one of them still could not overcome the liver problems and developed persisting hepatitis.

Some other less frequent side effects observed during the treatment with thyrostatics were the following: stomach pain in 5 cases and bone pains in two female patients without osteoporosis.

Goitrogenic effects or drug-induced hypothyroidism were observed extremely rare because of L-Thyroxin (Berlin-Chemie) addition to the treatment.

CONCLUSION

We can conclude that the treatment with thyrostatics has a number of side effects, most common of which are leukopenia, allergic reaction, and liver disorders. The side effects depend on the dose of the drug, the duration of its application, the preliminary leukocyte number and the condition of the liver.

The treatment with Propycil shows less frequent side effects than the treatment with Metizol. When L-Thyroxin is included in the therapy, the goitrogenic effects and iatrogenic hypothyroidism are prevented. Propycil is preferred for its quicker initial and clinical effect in the treatment of thyrotoxic crisis, during pregnancy, and for preoperative patient's preparation.

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Странични прояви при лечение с тиреостатични средства

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Резюме: Авторите съобщават за проучване на 118 болни с тиреотоксикоза, лекувани в Клиниката по ендокринология на Катедрата по ендокринология и гастроентерология през 1996-1997 г. След лечение с тиреостатици са налице редица странични ефекти, най-чести от които са левкоцитопенията, следвана от алергичните реакции и чернодробните нарушения. Усложненията зависят от дозата и продължителността на лечението, предварителното ниво на левкоцитите и състоянието на черния дроб. При

лечението с Propusil се наблюдават по-рядко странични ефекти, отколкото при това с Metizol. Предимството на препарата Propusil (Solvay Pharma) се състои в по-бързия начален и клиничен ефект, поради което той трябва да се прилага при тиреотоксични кризи, бременност и предоперативна подготовка.