

Božo Trbojević, Mirjana Stojković, Slavica Savić i Đorđe Marina

Drug therapy of hyperthyroidism

Abstract: Hyperthyroidism is common, affecting approximately 2% of women and 0.2% of men in general population. The most common cause of hyperthyroidism worldwide is Basedow or Graves' disease. Thiourea derivatives, methimazole, carbimazole and propylthiouracil are the main drug treatments, blocking iodine organification and thyroid hormone synthesis. Traditionally, it is the dogma that they may also help control thyrotoxicosis by immune suppression. Propylthiouracil additionally inhibits the peripheral conversion of thyroxine (T₄) to triiodothyronine. Methimazole is the active metabolite of carbimazole, and since the conversion of carbimazole to methimazole is almost complete, equivalent doses are thought to be comparable.

Anti-thyroid drug therapy can be given by the titration regimen where the antithyroid drug dose is reduced by titrating treatment against thyroid hormone concentrations.

Rarely, block and replace regimen where a higher dose of antithyroid drug is used with a replacement dose of thyroid hormone keeping patient in euthyroid state. The preferred regimen and duration of therapy remain unresolved with varying duration from 6 to 24 months with either the titration or block and replace regimen. In special circumstances one can use iodide, perchlorate or lithium salts in the therapy of autoimmune hyperthyroidism, usually in preparing patients for more definitive forms of treatment.

Key words: hyperthyroidism, therapy of hyperthyroidism, thiourea.