

# PREDICTION OF ADVERSE EFFECTS IN PATIENTS WITH BENIGN PROSTATIC HYPERPLASIA TREATED WITH 5 ALPHA REDUCTASE INHIBITORS

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## DEFINITION

Post 5 ARI syndrome initially known as "postfinasteride syndrome" since 2012 relates to all adverse effects of 5 alpha reductase inhibitors mainly erectile dysfunction and depression

The basis of its occurrence is the inhibition of 5 alpha reductases and blocking the biosynthesis of powerful neurosteroids from their precursor dehydroepiandrosterone and the conversion of testosterone to dihydrotestosterone.

Dehydroepiandrosterone itself has been proven as a stimulator to NO sintetase activity in the endothelium and as neuromodulator in the brain

## AIM

To show the significance and role of the dehydroepiandrosterone in patients with BPH who are on 5ARI therapy as an important predictor of post-5ARI syndrome

## MATERIAL

Investigated 112 patients with BPH combination therapy (tamsulosin + dutasteride)  
Control group 110 patients with monotherapy with tamsulosin

## METHODS

- IPSS
- IIEF-5 and
- Beck depression inventory

## RESULTS

Post-5ARI syndrome appeared in 20 patients (19%)  
All 20 patients had low IIEF-5 scores, suggesting erectile dysfunction (fig.3)

All 20 patients had high Beck depression inventory score, suggesting from mild to clinical depressive symptoms (fig.4)

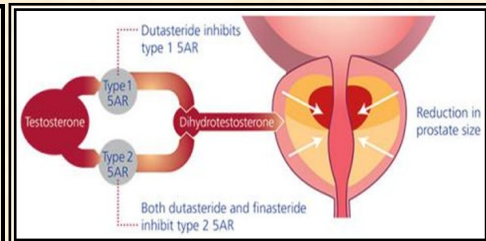


Figure 1. Effects of 5 alpha reductase inhibitors

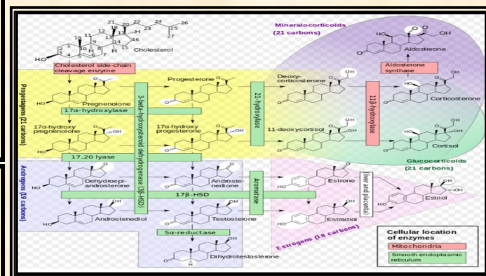


Figure 2. Biochemical role of 5 alpha reductases

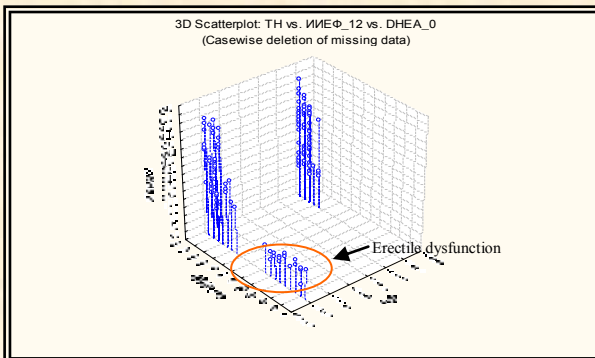


Figure 3. Erectile dysfunction in correlation with DHEA levels in examined group

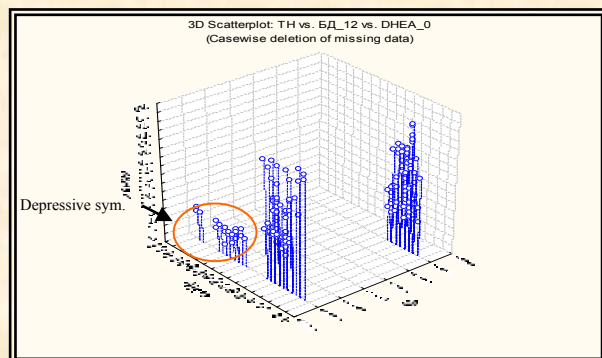


Figure 4. Depressive symptoms in correlation with DHEA levels in examined group

## CONCLUSION

- Patients that have had lower levels of dehydroepiandrosterone and no erectile dysfunction nor depressive behavior before starting BPH therapy with 5ARI, SHOWED expression of these symptoms after 5ARI introduction
- Serum levels of dehydroepiandrosterone in patients with BPH who take 5ARI therapy plays an important role as predictors in the appearance of post-5ARI syndrome.