

HEAT saturation binding supports an overall increase in α_1 ARs in obstructed detrusor. Competition experiments with subtype-selective antagonists are in progress to determine if the overall increase in α_1 ARs specifically correlates with the increased α_{1d} ARs mRNA. If these findings are confirmed in the human, targeting the α_{1d} AR may provide a new therapeutic approach to controlling bladder hyperactivity associated with BOO.

35

Author(s): Y. Yoshimura, F. Bellamy, I. Perlash, CE, Constantinou
 Institution, city, country: SCI Center & Urology, Stanford University, CA & Fournier Laboratories, Dijon, FRANCE
 Title (type in CAPITAL LETTERS, leave one blank line before the text):

EFFECT OF CO-POST-TREATMENT WITH TADENAN(TAD) ON THE MICTURITION CHARACTERISTICS OF THE RAT STIMULATED WITH DIHYDROTESTOSTERONE (DHT)

Aims of Study

Pre-treatment with oral TAD has been shown to possess a protective effect on bladder dysfunction. In the present paper, we evaluated the functional influence of co-treatment and post-treatment with oral TAD on the frequency/volume characteristics of micturition of conscious rats, stimulated with DHT to induce experimental prostate growth.

Methods

Studies were carried out over a period of 6 weeks using 40 SD male adult rats weighing 504±22g. Animals were divided into 4 equal groups and treated daily with DHT(1.25mg/Kg/s.c. dissolved in sesame oil(SO) as vehicle) and TAD (100mg/Kg/p.o. dissolved in peanut oil(PO) as vehicle). Groups were defined as follows: [1]:Vehicle only; SO during week 1-2, PO during week 1-6; [2]:DHT in SO during week 1-2, PO during week 1-6. [3]:DHT in SO+TAD in PO during week 1-2, TAD in PO during week 3-6. [4]:DHT in SO during week 1-2, TAD in PO during week 3-6. Micturition characteristics were monitored every 2 weeks for 24 hours while the conscious rats were housed in metabolic chambers. Data were analyzed in terms of frequency(F), and max. volume per micturition(V). At the conclusion of the 6 weeks period, rats were killed and wet prostate weight measured. Values are mean±SE.

Results

The effect of treatment in the four groups on F is given by Figure 1 which shows that DHT produces a significant increase in F attaining maximum effect by the 4th week of observation. As shown by Figure 1, co-treatment with TAD, as well as post-treatment with TAD significantly (p<0.01) suppresses the effect of DHT at the 4th week of observation.

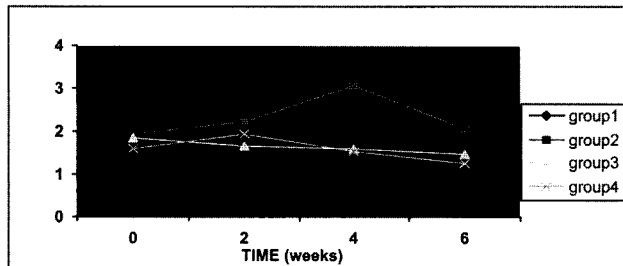


Figure 1

* p<0.05

422 Abstracts

The corresponding values for V are shown below by in Figure 2. As indicated DHT produces a significant ($p < 0.05$) decrease in V in comparison to baseline values. However when TAD is co-administered, the reduction in V is suppressed and when TAD is post-administered the reduction in V is reversed.

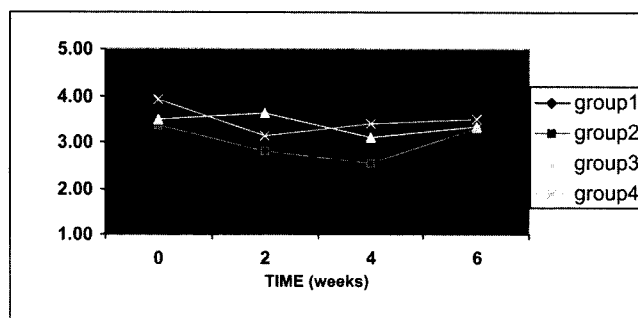
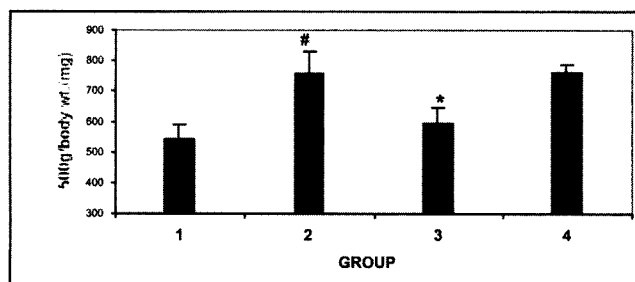


Figure 2 Comparison between baseline and 4th week of group 2 * $p < 0.05$



2&3

Figure 3 shows the effect of treatment on the weight of the prostates showing that DHT produces a significant increase ($p < 0.05$) in prostate weight compared to controls. As indicated, co-treatment with TAD, group3, significantly suppresses ($p < 0.05$) prostate growth in comparison to DHT in SO; group2. Furthermore in comparison to DHT-treatment group2, post-treatment with TAD, group4, does not significantly change prostate weight.

Conclusion

These results clearly demonstrate that both the co- and post-treatment with oral TAD can significantly suppress the DHT-induced effects on the frequency/volume characteristics of micturition in the conscious rat. The most pronounced effect of TAD was observed in its influence on the frequency of micturition providing evidence to suggest amelioration of the "obstructive micturition characteristics" as induced by experimental prostate growth using DHT. Finally it is suggesting that, co-TAD but not post-TAD administration regresses DHT-induced prostate growth.

SUPPORTED BY FOURNIER LABORATORIES

36

Author(s): M. Ahn, S. Alva, M.P. Sullivan, P. Shiromani, S.V. Yalla

Institution, city, country: Boston Veterans Affairs Healthcare System, Harvard Medical School, Boston, MA

Title (type in CAPITAL LETTERS, leave one blank line before the text):

CHANGES IN MICROVESSEL DENSITY IN THE PARTIALLY OBSTRUCTED RAT BLADDER

Aim of Study: Experimental partial infravesical obstruction leads to a series of bladder physiologic and architectural changes that occur during a progression from initial bladder compensation to a decompensated state. During the early acute phase of obstruction, increased wall tension and bladder stretch during the storage and emptying stages causes a reduction in bladder perfusion (ischemia) [1].