

analysis indicated that the T allele of *eNOS* gene T894G polymorphism is a risk factor for erectile dysfunction in Asians. However, the results should be interpreted with caution and further studies are required.

Keywords: Meta-analysis; eNOS; erectile dysfunction

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AB198. Estrogen attenuates the TGFβ1-induced conversion of primary penile tunica albuginea fibroblasts into myofibroblasts and inhibits collagen production and myofibroblast contraction by modulating the Smad and Rho/ROCK signaling pathways

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Objective: The transformation of penile tunica albuginea fibroblasts (TAFs) into myofibroblasts plays an important role in the pathological progress of Peyronie's disease (PD). However, no treatment is currently available to address this issue. Estrogen has been shown to inhibit the progression of fibrosis in many fibrotic diseases. The aim of this study was to determine whether estrogen could suppress the activation of primary rat penile TAFs *in vitro*.

Methods: TAFs obtained from male SD rats were stimulated with either TGF-β1 or estradiol (E2). Western blotting and immunofluorescence were used to assess changes to the levels of αSMA expression. Additional proteins were

also detected using routine western blotting. We used collagen gel assays to assess cell contractility. Additionally, the concentration of hydroxyproline in TAF cell culture media was detected by using commercially available kits.

Results: We found that E2 reduced the TGF-β1-induced expression of α-smooth muscle actin (SMA). E2 was also found to suppress TGF-β1-induced increases to the concentration of hydroxyproline (a marker of collagen) in addition to the contraction of TAFs. The key factors that were affected by TGF-β1 treatment included the phosphorylation of Smad2, RhoA, and ROCK2; these effects were inhibited by treatment with E2.

Conclusions: Collectively, these results demonstrate that by modulating the TGF-β1-Smad and RhoA-ROCK2 signaling pathways, E2 can inhibit the transformation of TAFs into myofibroblasts, reduce the expression of collagen, and suppress the contraction of myofibroblasts in response to TGF-β1 stimulation.

Keywords: Rho/ROCK; estrogen; TGF-β1

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AB199. Resveratrol, an activator of SIRT1, restores erectile function in streptozotocin-induced diabetic rats

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Objective: The high incidence of erectile dysfunction (ED) in diabetes highlights the need for good treatment strategies. Recent evidence indicates that silent information regulator