

Efficacy of pentoxifylline in Peyronie's disease: Clinical case of a young man

Lucio Dell'Atti, Gianni Ughi

Urology Unit, Arcispedale "S. Anna", University of Ferrara, Italy.

DISCUSSION

Peyronie's is a disease process that primarily affects the tunica albuginea. The origins of the inflammatory response that eventually results in the formation of the plaque are not fully understood. The most plausible theory to explain this process is that the stretch and bend trauma, which may occur during sexual intercourse, can result in tunical delamination (4).

Delamination not only incites inflammation, induration, and fibrin deposition, but also activates fibroblasts and leucocyte reactions (5).

The great number and variety of purported treatments for PD is in proportion to the difficulty of its management. Pentoxifylline (PTX), 3,7-dimethyl-1(5'-oxo-hexyl) xanthine, is a non specific phosphodiesterase inhibitor, with combined anti-inflammatory and antifibrogenic properties. It downregulates TGF β (6) and increases fibrinolytic activity. An autoimmune cause has also been proposed in the pathogenesis of PD. PTX has been used successfully for the treatment of experimental autoimmune diseases (7).

Cytokines such as TNF, platelet-derived growth factor, and fibroblast growth factor, are known for their role in fibrosis (8).

PTX has been used in humans (in divided doses of 800-1600 mg per day) in a variety of inflammatory and fibrotic conditions, including radiation fibrosis, radiation proctitis, cystic fibrosis, radiation pneumonitis, steatohepatitis, epidural fibrosis and osteoradionecrosis.

Valente *et al.* have demonstrated that both sildenafil and pentoxifylline reduce the plaque's size in tunical fibrosis induced by injection of TGF- β 1 (9).

Although the case reported has not the value of a placebo-controlled study, the objective resolution of the dorsal calcification leads us to believe that this was not due to the placebo effect or to spontaneous resolution.

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