TREATMENT OF PEYRONIE´S DISEASE VIA MECHANICAL TRACTION, JES EXTENDER®

A prospective study in 26 males

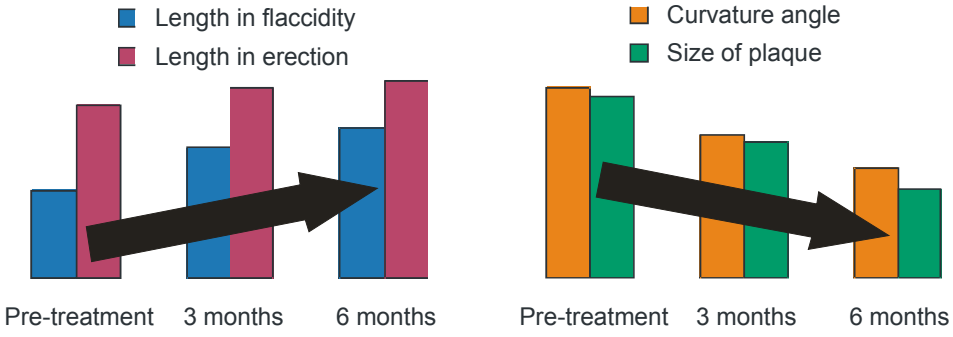
J. Ruiz-Romero, MD; J. Ponce de León, MD
Department of Urology and Andrology, Clínica Tres Torres, w/ Dr. Carulla, 112 – 08017 Barcelona (Spain).

INTRODUCTION: The traction force applied upon the tissues results in an adaptation reaction at a structural level, due to the suppression of an inhibitor factor related with cellular division, which thereby results in cellular duplication and therefore, the expansion of the tissues. This principle has successfully been applied for quite some time for different medical purposes, among which the treatment of skin lesions, the loss of tissue and post-radiation scars are the most important. The origin of the fibrotic plaque in Peyronie´s disease still remains an unanswered question. The histological studies carried out so far confirm the presence of high concentrations of type-III collagen in the plaque, having been compared with hyperplastic scar tissue and keloids. The "maturation" of the fibrous tissue scars is produced via the translocation of collagen fibers, which takes place secondary to the traction forces that the fibroblasts oppose to the cellular contraction forces. The higher the concentration of type-III collagen in the fibrotic tissue, the stronger the contraction force is. The continuous mechanical traction on the penis in Peyronie´s disease stimulates cellular division and, therefore, the expansion of the healthy tissues and finally exerts an opposing force to the contraction force of the collagen.

POPULATION AND METHODS: A prospective study has been performed in 26 males who had been diagnosed as having Peyronie´s disease and were treated during a 6 month-period with the mechanical traction devise, Jes Extender®, exerting a pressure in the range of 1,200 and 1,500 g. The mean age was 50.8 (30 – 68) years old and the mean evolution time of the disease was 25.6 (2 – 72) months. Multiple fibrotic plaques were identified in 6 cases and just one in 19 patients. The long axis of the plaque was equal to or less than 3 cm in 20 cases; 11 patients referred sensorial disturbances of the penis and 21 presented with erectile dysfunction.

OUTCOMES: Mean values of the assessed parameters before the enrollment, and at 3 and 6 months after treatment was performed are expressed in Table I.

	Pre-treatment	3 months	6 months
Curvature angle (º)	49.8 (27-63)	37.4 (18-54)	28.7 (5-48)
Size of plaque (cm)	2.35	1.77	1.15
Length in flaccidity (cm)	9.78	12.1	13.1
Length in erection (cm)	14.4 (10-19)	15.3	16.5



CONCLUSIONS:
After a 6-month treatment, the plaque disappeared in 7 cases (26.9%) and a marked decrease in the number, size and consistency of the plaque was observed in 18 (69.2%). Likewise, 13 (61.9%) patients recovered their erectile function and 10 (90.9%) recovered their sensitivity in the penis.
The mechanical traction on the penis has a beneficial effect on the fibrotic plaque that is usually clinically evident via the reduction of the size and consistency of the plaque, the correction of the curvature angle, the recovery of the length of the penis, and the improvement in the quality of the erection.