

**INTRAPLAQUE INJECTION OF TIOLCHICINE AND
VERAPAMIL IN PEYRONE'S DISEASE PATIENTS: A
PROSPECTIVE RANDOMIZED SINGLE-BLIND
COMPARATIVE STUDY.**

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Peyronie 's Disease

- There are few effective treatments for the “acute” phase of PD
- Intralesional Verapamil can be efficacious in some patients
- Oral colchicine has been used with controversial results

Hatzimouratidis K, Eardley I, Giuliano F, Hatzichristou D, Moncada I, Salonia A, Vardi Y, Wespes E; European Association of Urology. EAU guidelines on penile curvature. Eur Urol. 2012 Sep;62(3):543-52

Hypothesis

- Colchicine is an oral anti-inflammatory medicine that inhibits collagen secretion and decreases collagen production by increasing the activity of collagenase
- It has been used for PD with controversial results
- Will results be better if it is used intralesionally?
- Parenteral colchicine is very painful and toxic.
- We used Tiocolchicine, a colchicine analogue, used as miorelaxant

Objective

- To compare the effects of tiocolchicine or verapamil intralesional injection on plaque size, sexual function and penile curvature in Peyronie's Disease (PD) patients.

Material and methods

- Prospective randomized single-blind study
- 25 patients were randomized to receive intralesional tiocolchicine (2mg/ml in 2 ml) or verapamil (2,5mg/ml in 2 ml) injection
- All patients had been suffering from PD for up to 18 months.
- Cases with less than 3-month progression, history of trauma or history of surgical PD correction were excluded.
- Patients were treated weekly in 7 consecutive consultations.
- Outcomes considered were photograph-based measurement of penile curvature during intracavernous drug induced erection, sonographic measurement of plaque size and IIEF (International Index of Erectile Function).

Demographics

- 25 patients were randomized
 - Tiocolchicine – 13 and Verapamil – 12
- Average age: 56.8 years (39 – 79)
- Average time of PD: 9.88 months (2 -16)
- Position of the plaque
 - Dorsal – 12 / 25 (48%)
 - Ventral – 3 / 25 (12%)
 - Dorso-Lateral – 10 / 25 (40%)
- Previous treatment of PD– 9 /25 (36%)

Results

- **Penile curvature:**
 - **Tiocolchicine: penile curvature improvement (p=0,019)**
 - Average baseline curvature - 46.7° (25 - 90)
 - Average post treatment curvature – 36.2° (0 – 70)
 - Curvature improved in 9/13 patients (69%)
 - **Verapamil: penile curvature improvement (p=0,012)**
 - Average baseline curvature - 50.4° (25 – 60)
 - Average post treatment curvature – 42.08° (25 – 60)
 - Curvature improved in 8/12 patients (66%)

Plaque Size

		Tiocolchicine		Verapamil		Total		Sig. (p)
Baseline Plaque Size (cm)	<1,5	3	23,10%	4	33,30%	7	28,00%	0,576
	>3	7	53,80%	7	58,30%	14	56,00%	
	1,5 a 3	3	23,10%	1	8,30%	4	16,00%	
Final Plaque Size (cm)	<1,5	2	15,40%	3	25,00%	5	20,00%	0,075
	>3	2	15,40%	6	50,00%	8	32,00%	
	1,5 a 3	9	69,20%	3	25,00%	12	48,00%	

Results

- IIEF-5:
 - Tiocolchicine: increase of average score (p=0,23)
 - Average baseline score – 16.69 (0 a 30)
 - Average post treatment score – 20.85 (0 – 30)
 - IIEF-5 improved in 8/13 patients (61.5%)
 - Verapamil: decrease of average score (p=0,58)
 - Average baseline score - 17.50 (1 – 30)
 - Average post treatment score– 16.25 (6 – 27)
 - IIEF-5 improved in 6/12 patients (50%)

Pain

	Y/N	Group				Total		Sig. (p)
		Tiocolchicine		Verapamil		Freq.	Perc.	
		Freq.	Perc.	Freq.	Perc.			
Baseline Pain	N	10	76,90%	7	58,30%	17	68,00%	0,319
	Y	3	23,10%	5	41,70%	8	32,00%	
Final Pain	N	10	76,90%	11	91,70%	21	84,00%	0,315
	Y	3	23,10%	1	8,30%	4	16,00%	

Results

- There were no adverse events with the intralesional use of Tiocolchicine and Verapamil

Conclusions

- Tiocolchicine and Verapamil intralesional improved penile curvature in patients with PD.
- Tiocolchicine and verapamil had similar effects on penile curvature.
- No significant adverse effects were observed with intralesional injection of Tiocolchicine and Verapamil