

# VACUUM THERAPY (VTET) AS TREATMENT FOR PENILE CURVATURES

Benny VERHEYDEN, m.d.

Andrology Unit, department of Urology  
Antwerp University Hospital  
Edegem, Antwerp Belgium



## Introduction

For the management of penile curvatures, several treatments are already proposed in literature.

Non-operative treatments are successful in the early stage of the disease, trying to control inflammation and to prevent the development of fibrosis.

Operative treatments are more successful in reducing the curvature and so resolving the dyspareunia problem, but are not easily accepted by the patient.

We observed a few patients with Peyronie's disease using a vacuum device for the symptomatic treatment of their erectile dysfunction (E.D.). They stated a reduction of their curvatures and a softening of their plaques.

This experience led us to the idea of studying the use of a vacuum device in a group of patients with penile curvatures.

## Patients and methods

- We selected 12 patients with penile curvatures, preferring a non-surgical treatment.
- Penile curvatures may (8/12) or may not (4/12) be associated with E.D..
- Curvatures must be stable or progressive for at least one year.
- Systemic or local treatment preceding the study was not an exclusion criterion, but this medication should be discontinued at least three months before entering the study.
- At the screening visit the curvature was visually appreciated and photographed during an erection induced by intracavernous injection. The angle was measured after imprinting the rigid penis in a foam.
- Plaques were clinically appreciated and documented with ultrasound and/or MRI.
- Patients applied the vacuum therapy once daily for fifteen minutes (three times five minutes) for three months. They kept all remarks in a diary. There was a control application session after three weeks. The commercial ERECAID (Osbon) vacuum device was used for the study.
- All patients were re-evaluated after 3 months, some again after 6 months. Again curvatures were studied during erection induced by IC injection, plaques were studied by ultrasound.
- After 3 months patients were asked to continue the study for an additional 9 months using the device three times a week.

## Discussion

In a small group of patients we studied the effect of vacuum therapy on penile curvatures and their associated fibrotic plaques.

Subjective results are good: more than half of the patients stated that their curvatures disappeared and their plaques softened.

We tried to objectivate some parameters by measuring the curvature angle and the plaque dimensions. Also these parameters improved by more than half of the patients.

With a follow up of only 6 months and a continuing treatment, we realise however that this data should be considered with care.

Nevertheless we think that further studies on this issue are worthwhile.

## Results

### After 3 weeks

- In none of the patients there was any reduction of the curvature angle.
- Few patients considered their plaques softer and less pain full by palpation. This was subjective and not confirmed by the observer.
- Three patients complaining from pain in the plaque, had their pain resolved after three weeks.

### After 3 months

- In 10/12 patients the angle of the curvature was reduced at least with 75% (visual appreciation)
- Measured reduction of the curvature was in 9/12 patients at least 50% with a mean of 70% (89% - 34%).
- In 7/12 patients the curvature disappeared completely (visual appreciation). The measured curvature in these patients was less than 15°
- 10/12 patients were satisfied with their treatment and continued the study.
- In 2/12 patients the treatment was not successful. One patient had an erection prosthesis resolving both his problems of E.D. and curvature. The other patient had a severe curvature existing for 4 years, resistant to the treatment.
- In 10/12 patients the plaque softened, in 5 among them the plaque has disappeared almost or even completely.
- In 7/12 patients the fibrotic plaque could be visualised on ultrasound. In 5/7 patients this plaque could not be demonstrated after 3 months.

### After 6 months

- Until now 7/12 patients continued the study for at least 6 months. Curvatures did not recur, plaques remained soft.

## CONCLUSION

In patients with penile curvatures, who chose for a non-invasive treatment, the daily application of a vacuum device may be an alternative of choice.