

Universitätskliniken des Saarlandes, Klinik und Poliklinik
für Urologie und Kinderurologie Homburg-Saar

Extracorporeal Shock Wave Therapy of Induratio Penis Plastica

Treatment Attempt with Piezoson 100 / FB7

Dr. med. M. Gerber
Prof. Dr. med H. Derouet
Prof. Dr. med. M. Stöckle

Preliminary Remarks

Inclusion Criteria:

- Unsuccessful pretreatment over a period of min. 3 months; pretreatment with Potaba®, Vitamin E or Tamoxifen
- Requirement: plaques combined with painful erection and / or penis deviation

Exclusion Criteria:

- lack of pretreatment
- thrombopathy

Preliminary Examination:

- Anamnesis: duration of symptoms, previous treatment, subjective pain assessment based on analog pain rating scales, subjective deviation assessment and autophotography, if required
- Clinical examination in artificial erection (prostaglandin E1 intracavernously): determination of erection strength, plaque localization, objectivation of deviation degree
- Cavernous body sonography: plaque measurement, verification of calcification, duplex vascular sonography

Treatment:

- 6 sessions planned (once a week)
- Most time in artificial erection: except for patients with well-palpable plaques or patients with tendency to prolonged erection
- Generally no anesthesia
- 3,000 shock waves / session
- Shock wave intensity orientated towards patient complaints

Follow-up Examination:

- After 3 and 6 months
- Evaluation of diagnosis like for preliminary examination
- Evaluation of treatment success by patient
- Additional treatment planning, if required

Initial Finding:

number of patients :	26*
age:	54 years (range: 41 - 8)
duration of symptoms:	22 months (range: 2 - 120)
pain:	16 (62 %)
deviation:	24 (92 %)

Treatment Data:

- Average number of treatments / patient:
6.5 (range: 6 - 28)
- Average shock wave intensity/patient:
13.5 (range: 10.3 - 15.8)
- Average energy flow density: 0.278 mJ / mm²

Pain Reduction:

- 26 patients were included into the calculation for which follow-up data of 3 months were available:

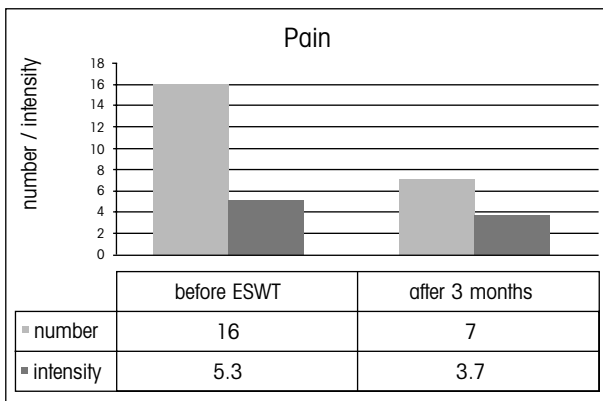


Fig. 1: Number of patients with pain and average pain intensity. Follow-up data before and after ESWT

Difference in Wilcoxon test statistically highly significant (P < 0.0001).

- 13 patients were included into the calculation for which follow-up data of over 6 months were available:

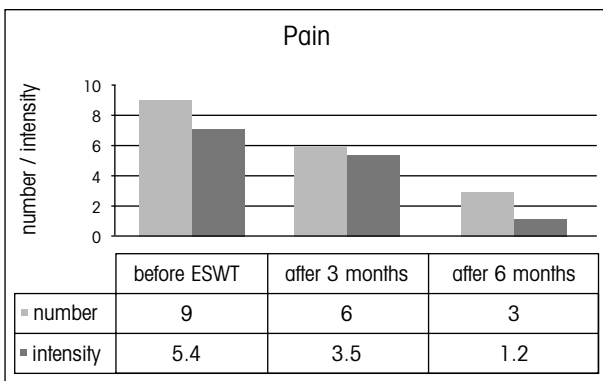


Fig. 2: Number of patients with pain and average pain intensity. Follow-up data after 3 or 6 months after ESWT

The difference between the pain intensity before and 3 months after ESWT is statistically highly significant (p < 0.002, Wilcoxon test). No significant difference found in pain reduction between 1st and 2nd follow-up examination (p < 0.375).

Reduction of Deviation:

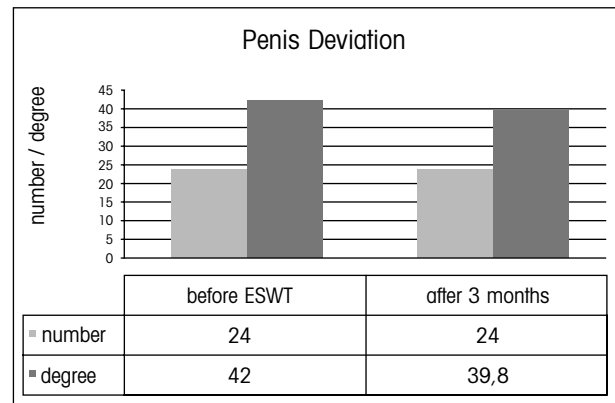


Fig. 3: Number of patients with penis deviation and data on medium deviation degree. Follow-up data of 3 months after ESWT.

The difference in the average penis deviation is marginal (from 42° to 39.8°). The count of patients with penis deviation is identical before and after ESWT.

Particularities:

- Patients stopping therapy: 3 (1 x deviation increased, 2 x treatment too expensive)
- Patients with > 6 treatments: 9 (34 %)
- Patient satisfaction: 61 %
- Complications: in 4 cases slight penile petechial bleeding, spontaneously stopping

* 36 patients treated so fare; follow-up data of 26 patients are available; as at June 2002