Extracorporeal Shock Wave Therapy of Induratio Penis Plastica

Treatment Attempt with Piezoson 100 / FB7

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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:

![Graph showing pain reduction before and after ESWT]

The difference between the pain intensity before and 3 months after ESWT is statistically highly significant ($p < 0.0001$, Wilcoxon test). No significant difference found in pain reduction between 1st and 2nd follow-up examination ($p < 0.375$).

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

![Graph showing pain reduction 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:

![Graph showing penis deviation before and 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 far; follow-up data of 26 patients are available, as of June 2002