

Extracorporeal Shockwave Therapy

*Principles and technic, application and
comparison with other therapies*

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Geneva 2001

Definition

- Shock-waves (= acoustic waves)
- Pulsating pressure waves
- Extremely short pressure rise
- High peak pressure

ESW of low energy density:

< 0.1 mJ/mm²

ESW of high energy density:

0.2 -0.5 mJ/mm²

Principles of Shockwaves

- Shockwavegenerator
 - Elektromagnetic system
 - Elektrohydraulic system
 - Piezoelectric system
- Liquid medium of transmission
- Ultrasound / radio focus-system
- Coupling cushion

*Ultrasound Guided
Extracorporeal Shockwave
Therapy (7.5 MHz)*

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Preparation - Therapy - Post Treatment Care

- Sedation
- Shaving, ultrasound gel
- 1-3 treatments
- 5-20 days treatment intervalls
- Energy density: 0.2-0.5 mJ/mm²
- Hand-walking; no stall-rest

Indications for ESWT

- Insertiondesmitis
- Tendinitis / Desmitis
- Calcifications in tendons and ligaments
- Arthrosis
- Osteoporosis

High Suspensory Desmitis

(n=124)

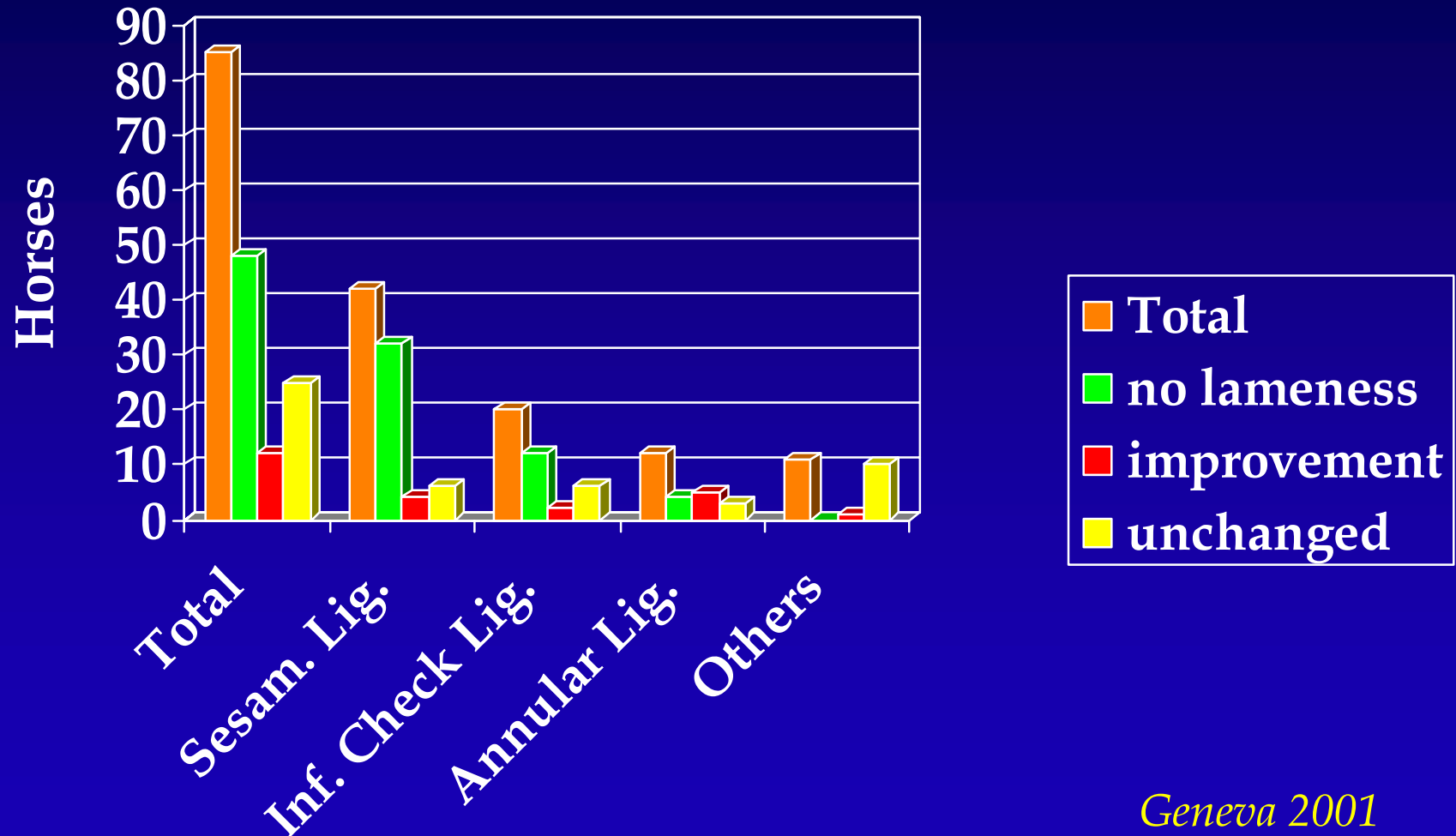
- 67 horses - lameness-free or almost sound (54%)
- 37 horses - improved (30%)
- 20 horses - unchanged (16%)

Other Forms of Desmitis

(n=85)

- 48 horses - lameness-free or almost sound (56%)
- 12 horses - improved (14%)
- 25 horses - unchanged (30%)

ESWT of Different Forms of Desmitis (n=85)

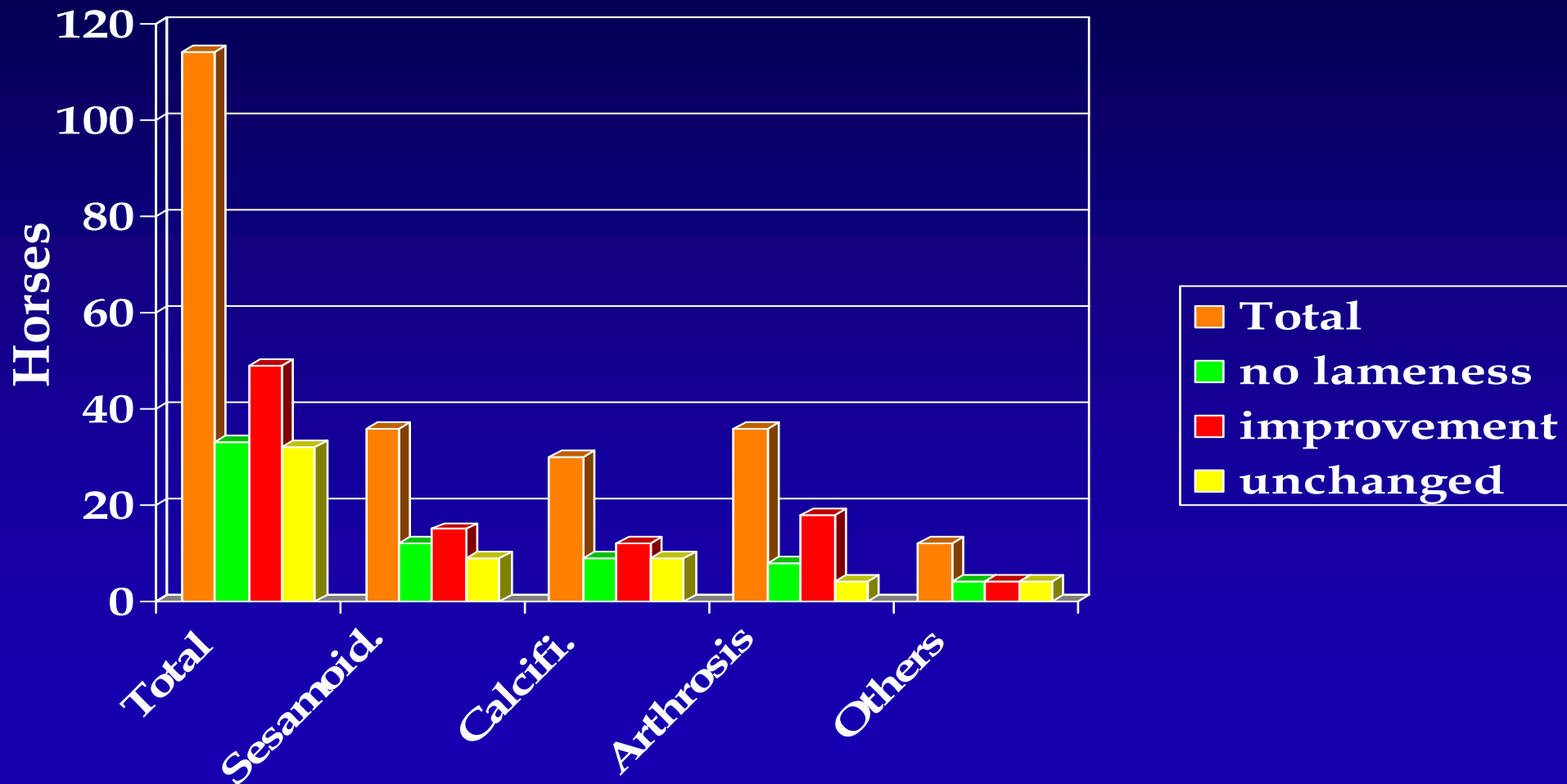


Other Indications

(n=114)

- 33 horses - lameness-free or almost sound (29%)
- 49 horses - improved (43%)
- 32 horses - unchanged (28%)

ESWT of Other Indications (n=114)



Advantages

- Minimal invasive - No surgery
- Low risk method
- Requires no general anaesthesia
- No hospitalisation required
- Cosmetic
- Successful therapy - even in case of unfavourable prognosis

Disadvantages

- No long-term results available
- Side effects (hematoma / inflammation)
- Costs
- No wonders; not healing everything, ...

ESWT of HSD (n=124)

