

# Extracorporeal Shockwave Therapy



## Economic Randomization

An Analysis of the Selection between Ossatron and Dolorclast Technologies in ESWT and Resultant Patient Outcomes

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# Purpose



1. To quantify patients perception and choice of treatment
2. Perceived Outcome (VAS)

# Introduction



- 2 different technologies and treatments:
  - Ossatron
  - Dolorclast
- What factors influenced the decision to choose Ossatron or Dolorclast?

# Introduction



## Ossatron:

- 810 EUR / Treatment
- Single Treatment
- Anaesthetic – Propofol (Diprovan)
- Emits high energy shockwaves
- FDA Approved
- Only Engine in Canada

# Introduction



## Dolorclast:

- 200 EUR / Treatment
- 3 Treatments
- No Anaesthetic
- FDA Trial
- 1500 worldwide



# Materials & Methods



- 32 patients:
  - 18 Dolorclast
  - 14 Ossatron
- Treatment sites: plantar fascia, elbow, achilles, jumper's knee, calcification
- Most common treatment site: plantar fascia

# Materials & Methods



## Which factors influenced choice of machine?

1. Cost – No Insurance
2. Frequency – Number of Treatments
3. Potential Success of the Machine
4. Anaesthetic

# Materials & Methods



## Outcomes:

- Clinically Improved
- Comparison of VAS Pre & Post
- Continued use of meds to manage pain
- Recommend the treatment to a friend



# Results



## Ossatron:

1. One time treatment most important
2. FDA Success
3. Cost
4. Anaesthetic

# Results



## Dolorclast:

1. Potential Success of the Machine most important factor
2. Cost
3. Frequency
4. Anaesthetic



# Results



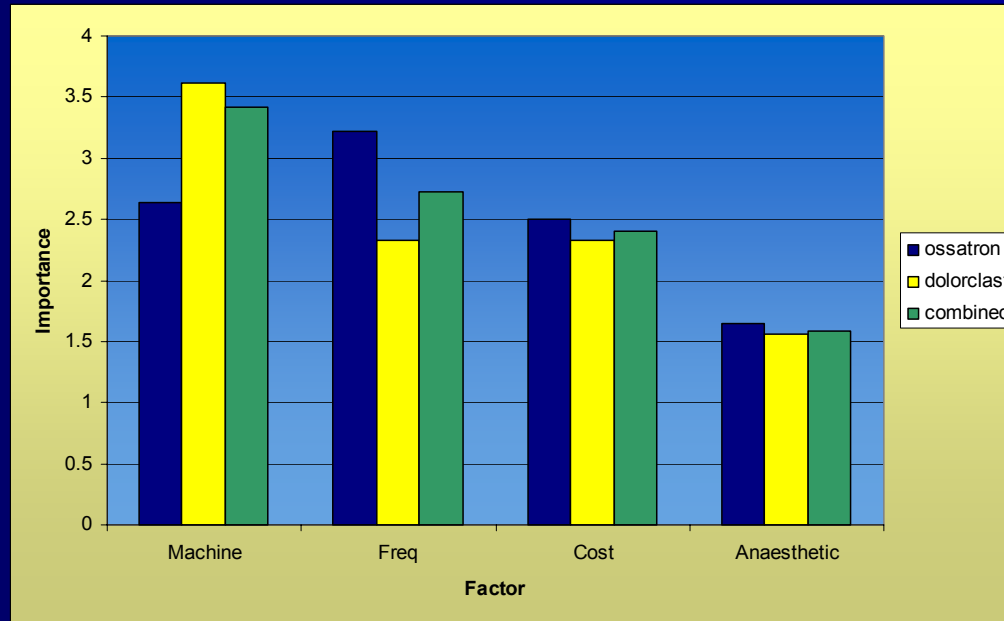
## Combined:

1. Potential Success of the Machine most important factor
2. Frequency
3. Cost
4. Anaesthetic

# Results



**Relative Importance of the Factors  
Influencing the Choice of the Machine**



# Results



- Are you better?
  - Ossatron 79% (11/14)
  - Dolorclast 83% (15/18)

# Results

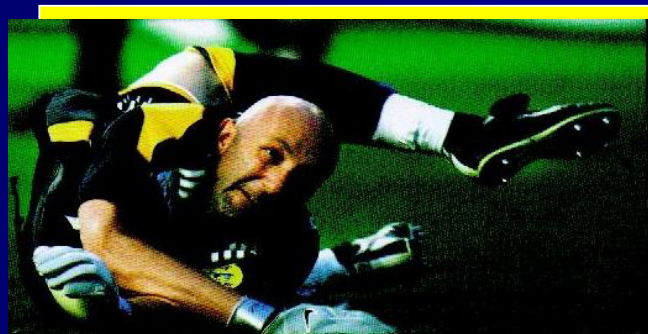


- Mean decrease on VAS at rest:
  - Ossatron = 5.57 (P=0.001)
  - Dolorclast = 3.11 (P=0.05)
- Mean decrease on VAS during activity:
  - Ossatron = 5.86 (P=0.001)
  - Dolorclast = 3.78 (P=0.05)

# Results



- Greater than 50% improvement of VAS at Rest:
  - Ossatron **93%** ( 13/14)
  - Dolorclast **50%** (9/18)
- Greater than 50% improvement of VAS during Activity:
  - Ossatron **57%** (8/14)
  - Dolorclast **50%** (9/18)



# Results



- Continued use of meds to manage pain:
  - Ossatron **14%** (2/14)
  - Dolorclast **11%** (2/18)
- Would recommend treatment to a friend:
  - Ossatron **100%** (15/15)
  - Dolorclast **83%** (15/18)





# Results



- 100% of Ossatron patients have English as their first language
- 88% of Dolorclast patients do not have English as their first language

# Discussion



## Ossatron:

- Single treatment most important
- Anaesthetic least

## Dolorclast:

- Apparent Success & Outcome most important
  - FDA results soon
  - Anaesthetic least
- 
- Anaesthetic is irrelevant for choice of treatment – USA significant



# Discussion



- Based on the criteria examined the overall success is fairly similar for both the Ossatron and Dolorclast groups
  - Mean change in Pre & Post VAS greater for Ossatron patients
  - Both highly recommended to friends
  - Low demand for pain meds post Tx for both groups



# Conclusion



- Potential success of machine and the number of treatments appear to be the most important factors
- Both Machines viewed to be successful
  - Dolorclast = 66% more economical assuming identical outcomes
- First Study of its kind
- Larger comparative study needed

# Thank You!

