

***A comparison between surgical and non-surgical
chronic LBP groups shows that patients decision to
undergo surgery were supported by functional
measurements***

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Introduction

- A classification-based approach for identifying specific characteristics of patients suffering from serious chronic lower back pain (CLBP) has become a priority in physiotherapy research.
- Classifications have been developed to predict success following physiotherapy interventions
- No clinical prediction rules have been created for patients with degenerative changes of the lumbar spine who are likely to require surgery and have successful outcomes post-surgery.

Introduction

This presentation is part of a 12m follow up which aims to determine whether clinical, morphological and functional measurements can predict self-reported successful outcomes in patients suffering from CLBP following a decompression or fusion surgery or a non-surgical "wait and see" approach.

Purposes of the study

Comparing functional measurements between "surgery" and "wait and see" groups at baseline and 3 months post-surgery:

1. Identifying what affects patients' decision making regarding surgery.
2. Finding functional differences between age groups (40–64 and 65+).

Materials and Methods

- Participants were 73 patients aged 40–80 from “Assuta” and “Meir” hospitals in Israel (59 had surgery and 14 chose to wait).
- Participants had all received a recommendation for surgery.
- Functional measurements were taken at baseline and 3 months following the baseline.
- Short term success was measured according to an improved score in the "Oswestry Disability Index" (ODI).

:Results

1. Better baseline results (before surgery) were measured in the "wait and see" group in a few parameters:

"Sit to stand test"

(max. squats in 30 sec., $p < .05$)

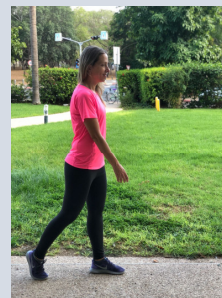
"Surgery" group 8.6 (5.01) (N=46) Vs.
"wait and see" group 12.4 (5.56) (N=12)



"Corridor test"

(walking over 400 meters, $p < .01$)

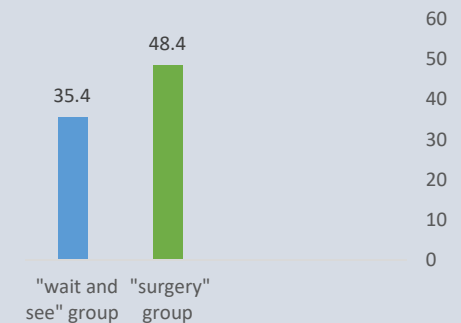
"Surgery" group 5.3 (.86) min. (N=20)
Vs. "wait and see" (N=7)



"ODI"

($p < .05$)

"Surgery" group 48.4 Vs. "wait
and see" group 35.4



2. Functional difference between the age groups of 40–63 and 65+:

A better "grip strength" (Isometric contraction against a dynamometer) and a better "single left leg standing" ($p < .05$) for the young group.

Single LT. leg standing (Sec.)

Ages 40-64(N=29): 17.6 (12.04) Vs.

Ages 65+(N=26): 10.1 (11.65)



Grip test with Dynamometer (KG)

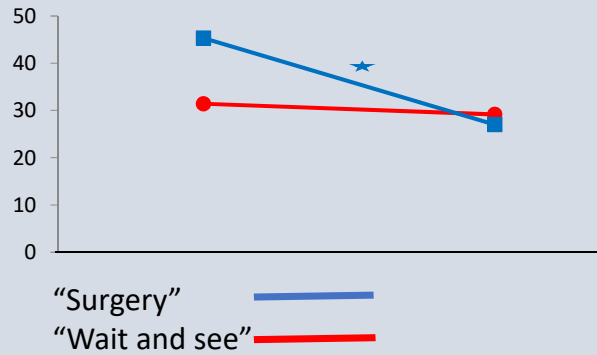
Ages 40-64 (N=35): 67.4 (26.81) Vs.

Ages 65+(N=25): 54.4 (21.19)

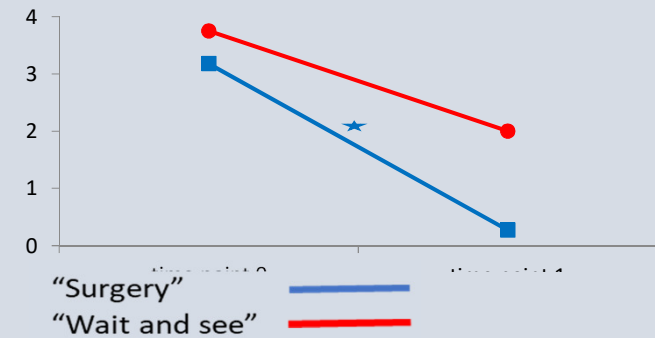


3. The "surgery" group showed **significant improvement in back and leg pain during passive SLR (p<.05) and in the ODI (p<.001)** Vs. the "wait and see" group, which showed no change in the short term (3 m).

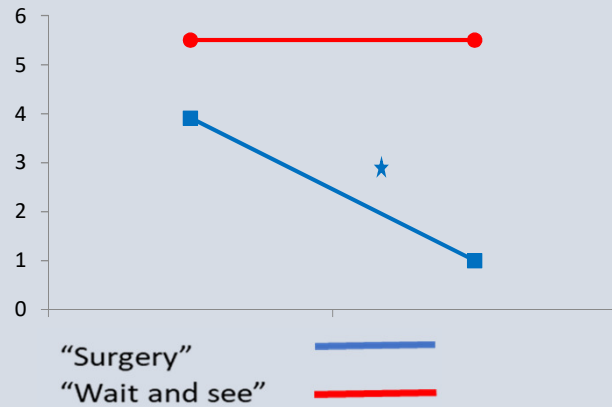
Oswestry Disability Index (ODI)
"surgery" group vs. "wait and see" (BL and 3m)



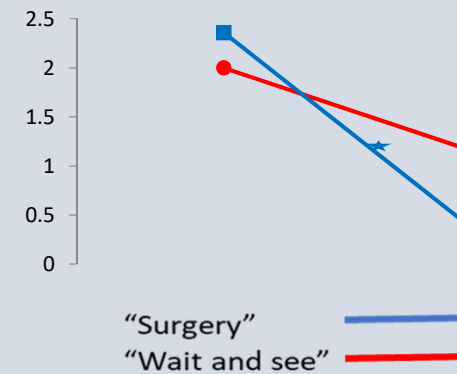
Leg pain with Rt. SLR in "surgery" group vs. "wait and see" (BL and 3m)



Back pain with Lt. SLR in "surgery" group vs. "wait and see" (BL and 3m)



Leg pain with Lt. SLR in "surgery" group vs. "wait and see" (BL and 3m)



Conclusion

- Better baseline measurements in the "wait and see" group show that patients' decisions not to undergo surgery were justified. These components may also serve as a further indication for surgery.
- However, it should be noted that the "wait and see" group is significantly smaller than the "surgery" group (14 and 59, respectively).
- There was indication of short-term improvement in the "surgery" group.

For the future..

Using long-term follow up, patients and clinicians will be able to make decision regarding surgery, based on comprehensive information from several aspects and the sensitivity shown by the ODI in both comparisons.

Disclosure declaration:

None of the authors has any potential conflict of interest.