

# More pain free men after surgery with a SHS compared with im nailing. A study of 7,820 patients with a pertrochanteric fracture.

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## Introduction

Pertrochanteric hip fractures are generally treated with sliding hip screw (SHS) or intramedullary nail (IMN). However, it is unclear which fixation method results in less pain. The aim of this study was to investigate whether postoperative pain differed between patients with pertrochanteric hip fracture after fixation with either SHS or IMN.

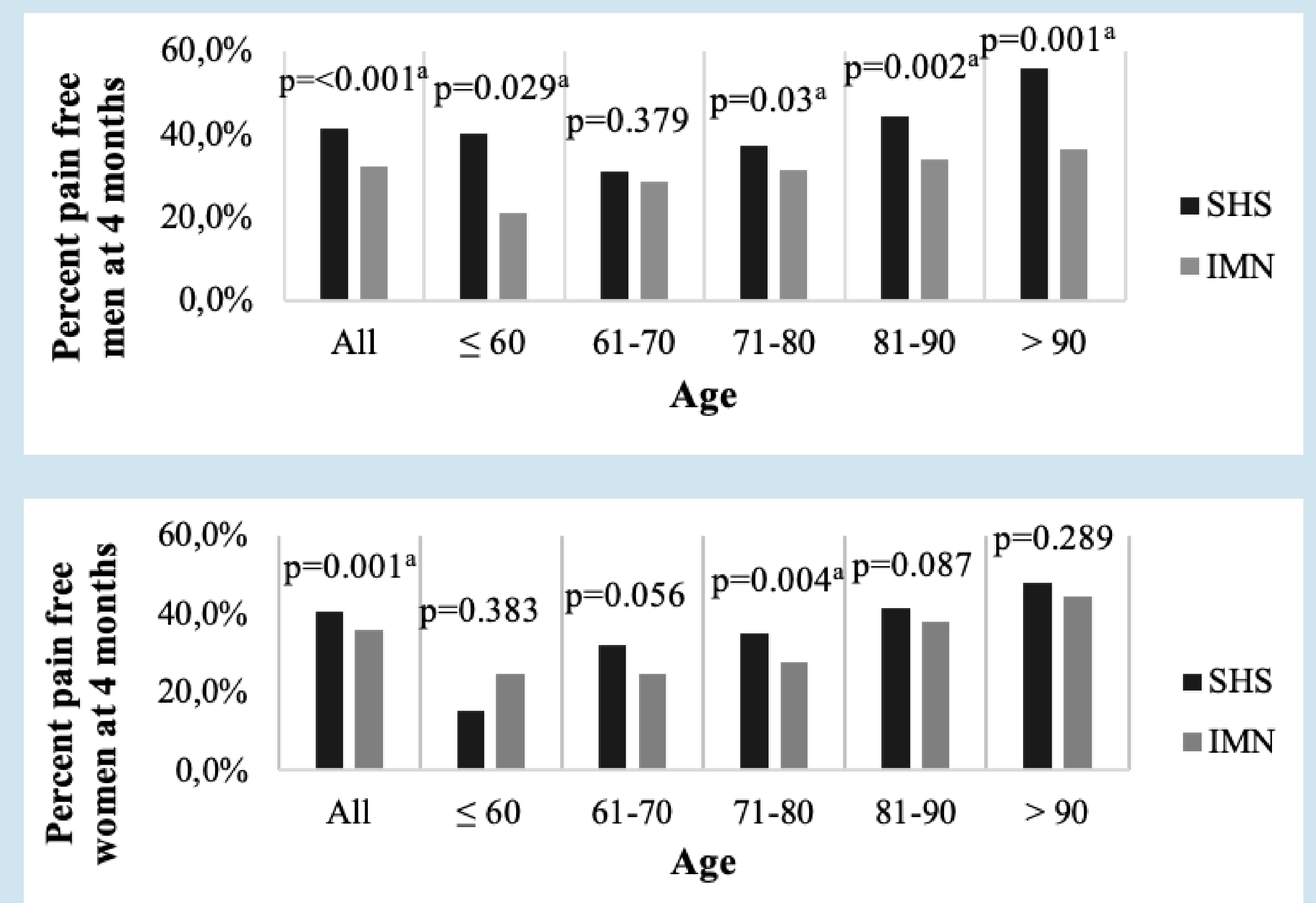
## Methods

This was a nationwide registry-based cohort study, with data from the Swedish National Hip Fracture Registry (RIKSHÖFT). A total of 7,820 patients with pertrochanteric hip fractures, treated with SHS or IMN, were included in the study. Two-part and multi-fragment fractures were analyzed separately. Treatment groups were divided based on sex and stratified by age groups.

## Results

Regarding two-part fractures, we found no differences in pain between fixation methods. For multi-fragment fractures, treatment with IMN was overall associated with more pain ( $p < 0.001$ ); 40.6% of patients treated with SHS were pain free at 4 months postoperatively, compared to 35% of patients treated with IMN. Men with multi-fragment fractures had higher levels of pain if treated with IMN for all age groups except 61–70 years. This was in contrast to the reported pain for women, where only one age group, 71–80 years, exhibited more pain if treated with IMN (Fig 1).

Fig 1 Patients with a multi-fragment pertrochanteric fracture, men and women presented separately.



## Conclusion

Men with multi-fragment fractures operated with an IMN experienced more pain at 4 months postoperatively compared to those operated with a SHS.



Fig 2 SHS or IM fixation. Still an unanswered question.