



THE OUTCOMES AFTER THE USE OF BIER'S BLOCK FOR THE MANIPULATION OF DISTAL RADIUS FRACTURES IN THE EMERGENCY DEPARTMENT

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ABSTRACT

Purpose: Our aim was to identify what proportion of patients can achieve a satisfactory reduction with Bier's block that can be treated non-operatively.

Methods: All patients who received a Bier's block in Emergency department in 2015 were identified using electronic patient databases.

Results: 92% or 60 out of 65 patients had radiological improvement in their fracture position post-manipulation, 2 out of 5 patients had radiological improvement in fracture position continued to be managed non-operatively. 12 out of 65 patients receiving Bier's block manipulation went on to need surgery.

Conclusion: Bier's blocks are very effective at allowing good fracture reduction in the Emergency Department and the majority of these patients go on to be managed non-operatively.

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INTRODUCTION

Options for reduction of distal radius fractures in the Emergency Department include haematoma block or Bier's block.

Published Literature shows that Bier's block:

- Provides better anesthesia, with lower reported pain scores (Cobb, 1985; Abbaszadegan, 1990; Kendall et al., 1997).
- Improved position of the distal fracture fragment when compared to haematoma block (Abbaszadegan, 1990; Wardrope, 1985).

- It can be perceived as being more time and resource consuming.

Objectives

Our aim was to identify what proportion of patients can achieve a satisfactory reduction with Bier's block that can be treated non-operatively.

MATERIALS AND METHODS

All patients who received a Bier's block in Emergency department in 2015 were identified using electronic patient databases.

RESULTS

- 92% or 60 out of 65 patients had radiological improvement in their fracture position post-manipulation.
- 2 out of 5 patients had radiological improvement in fracture position continued to be managed non-operatively.
- 12 out of 65 patients receiving Bier's block manipulation went on to need surgery.
- 2 out of these 12 had inadequate reduction, 3 had significant comminution, 4 had late fracture displacement and 3 were for other reasons.

Conclusion

Bier's blocks are very effective at allowing good fracture reduction in the Emergency Department and the majority of these patients go on to be managed non-operatively. This ultimately results in a better use of resources within the NHS by preventing the need for hospital admission for operative management. Their use should be continued and encouraged.

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