



Implant removal on an outpatient basis. A patient satisfaction survey

Kirti MOHOLKAR, Younis LODHI, John CORRIGAN

Unstable fractures of the distal radius can be stabilised with Kirschner wires. The K wires need to be removed after five to six weeks. The authors surveyed 100 consecutive patients with distal radial fractures treated with percutaneous Kirschner wires that were left buried under the skin. Group A had 50 patients who had such wires removed under local anaesthetic in the orthopaedic outpatient department. Group B comprised of patients who had the wires removed in the operating theatres under a short general anaesthetic. A questionnaire was designed to assess the satisfaction of these 100 patients. The survey showed that the patient satisfaction for this minor procedure carried out in the outpatient clinic was poor. Patient information and senior surgical input could increase the satisfaction.

INTRODUCTION

Distal radial fractures are estimated to account for more than one sixth of the fracture cases seen in emergency rooms (11, 12, 16). The treatment outcome of a distal radial fracture is largely determined by the pattern of the injury and anatomical restoration of the articular surface, which is the goal of treatment and aims to minimise the risk of post-traumatic arthritis (13).

In an effort to improve the clinical outcomes, several authors have recommended that distal radial fracture fragments be reduced operatively when articular incongruence exceeds 1 mm (10, 17) or 2 mm (4, 10, 13). Closed reduction, percutaneous pin fixation, pins and plaster and internal and external fixation can be used to treat these fractures (1-9, 14, 15).

The K wires used to treat the unstable distal radial fractures can be kept prominent outside the skin or bent and kept buried under the skin. These wires need removal in 4 to 6 weeks. The procedure of removal of wires is commonly carried out in the outpatient department (OPD) or the operating theatres. It also is commonly a procedure that is left for the most junior member of the team.

The present study seeks to provide patient satisfaction analysis of implant (wire) removal procedure as an outpatient and theatre based procedure.

PATIENTS AND METHODS

Our study population comprised of 100 patients who had a distal radial fracture treated by means of K wires that were buried under the skin. Group A had 50 patients that had removal of the wires in the orthopaedic outpatient department under local anaesthetic whereas Group B comprised of 50 patients who had removal of the K wires carried out in the operating theatres under a general anaesthetic. The decision to do the procedure in the theatre or outpatient department was entirely left to the patients. Three cross K wires were used in all the 100 cases.

From Waterford Regional Hospital, Waterford, Republic of Ireland.

Kirti Moholkar, Specialist Registrar.

Younis Lodhi, Senior House Officer.

John Corrigan, Orthopaedic Consultant.

Orthopaedic Department, Waterford Regional Hospital, Waterford, Ireland.

Correspondence : Kirti Moholkar, 26 Hilton Crescent, Prestwich, Manchester M25 9NQ.

E-mail : kmoholkar@hotmail.com.

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Table I. — Age and sex distribution

Age in years	Number of patients	
	Group A	Group B
50-60	21	24
60-70	13	15
70-80	12	3
80+	4	8

All 100 patients filled out a questionnaire to assess their satisfaction levels assessing the K wire removal procedure. These questionnaires were completed by the patients soon after the procedure before they went home. We collected all the 100 completed questionnaires and recorded the data on the department computer.

RESULTS

Amongst the 100 distal radial fractures, 97 were Colles' type, one Smith's and two volar Barton's type. All injuries were sustained due to a fall. The age distribution of our patients was as shown in table I. Group A comprised of 39 females and 11 males whereas Group B comprised of 41 females and 9 males. All fractures were treated with K wires and the wires were buried under the skin. When the wires were removed in the outpatient clinic, 2% lignocaine was used and stab incisions were made to retrieve the wires.

Analysis of the survey showed the greatest satisfaction in group B patients who had the wires removed in the theatre as compared to Group A who had the wires removed in the orthopaedic outpatient department under local anaesthetic.

Forty six percent of Group A patients expressed dissatisfaction regarding the procedure being carried out in the outpatient department. Thirty seven percent thought that they were not given enough explanation of the procedure. Sixty three percent were happy that the procedure took on average under 14.5 minutes (range 6-23 mins) and they could go home soon after. Only 26% patients expressed willingness to undergo a similar procedure in the outpatient department.

Fifty nine percent of patients in Group B were happy with the procedure carried out in the theatre.

Forty three percent were unhappy as they had to take a day off. Seventy six percent expressed their will to have a similar procedure carried out in the theatre and 34% patients said that they would possibly be willing to have the wires removed in the outpatient department.

DISCUSSION

Treatment of the distal radial fractures can be a major workload for the orthopaedic departments. In the era of resource management and patient outcome analysis, there is an increasing need to make the best possible out of the available resources and to have satisfied patients at the end of the treatment. We selected distal radial fractures for our study due to the large number of such injuries treated in a busy trauma centre as ours.

The wires can be removed in the outpatient clinic but our survey shows that the patients need detailed explanation of these procedures. This could be done at the time of discharge after the primary K wiring procedure, or during their first visit to the clinic 7 to 10 days later.

A brief explanation just before the wires were due to come out did upset a few patients who chose for the procedure to be carried out in the theatre. This explanation warns them and makes it possible for them to have a proper frame of mind as opposed to getting the shock of being told of such a procedure and then a second shock of the procedure carried out in the next minute by the Senior House Officer in a busy fracture clinic.

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