Surgical treatment of the first carpometacarpal joint arthritis using a mini external fixation system

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Purpose

Evaluation of our primary results from the use of a mini ex-fix system for the treatment of the first carpometacarpal joint arthritis¹⁻³ (Figure1).

Method

We admitted in our clinic 10 patients the last 2 years. 7 females, 3 males, all of them were agriculture workers. The main age 62 was years old (55-72y).

All the patients complained for pain and tenderness to the base of the thumb more than 3 years and presented decrease grip strength.⁴

In all the patients the anaesthesia was axillary block.

After an open debridement of the first carpometacarpal joint (Figure 2) we apply, under x-ray control, a mini ex-fix system^{3,5} (Figure 3).

Figure 1 Mini ex-fix system for the treatment of the first carpometacarpal joint arthritis.

It's very important the application of the first needle of the system to cause compression between the base of the first metacarpal and the trapezium (Figure 4 & 5).⁶⁻¹⁰

Results

In all the patients the system was removed after six weeks in outpatient clinic.

One patient had a pin track infection which was treated by oral antibiotics.

The post-op evaluation of the patients includes clinical examination and x-ray control.

All the patients had a short course of physical therapy post-op.¹¹⁻¹⁶

All the patients had complete pain relief and most of them returned to their previous activity after 3 months postoperative.¹⁷⁻¹⁸

Figure 2 After an open debridement of the first carpometacarpal joint.

Figure 3 Under x-ray control, a mini ex-fix system.

Figure 4 Under x-ray control, a mini ex-fix system.

Figure 5 Under x-ray control, a mini ex-fix system.

Conclusion

Even that the number of the patients and the follow up is short we believe that the above method is a safe and rigid method with satisfactory results (Figure 6).^{19,20}

Figure 6 After treatment.

Acknowledgments

None.

Conflicts of interest

None.

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