



Original Article

Is arthrodesis still a good indication for non-inflammatory arthrosis of the wrist?☆



Bruno de Araujo Silva^{a,*}, Marcos Vinícius Marciano Campos de Souza^a,
Felipe Moura Carrasco^a, Gustavo Adolfo Costa Melo^a, Luiz Eduardo Luz Barreiros^a,
Pedro José Labronici^b

^a Hospital Estadual de Traumatologia e Ortopedia Dona Lindu, Paraíba do Sul, RJ, Brazil

^b Faculdade de Medicina de Petrópolis (FMP), Petrópolis, RJ, Brazil

ARTICLE INFO

Article history:

Received 30 July 2014

Accepted 18 September 2014

Available online 9 September 2015

Keywords:

Arthrosis

Wrist

Arthrodesis of the wrist

ABSTRACT

Objective: The aim of this study was to objectively and subjectively evaluate wrist function after total arthrodesis, among patients with sequelae of non-inflammatory arthritis who were treated with rigid internal fixation using a DCP plate.

Methods: Thirty-two patients with sequelae of non-inflammatory degenerative arthritis were treated using total arthrodesis of the wrist. Of these, two patients were treated with Kirschner wires and four discontinued the treatment, thus leaving 26 patients. The indication for arthrodesis of the wrist was the presence of intracarpal pathological conditions: eight wrists presented sequelae from fractures of the distal radius; 13 had sequelae from fractures of the scaphoid; and five had sequelae from Kienbock's disease. The cases were evaluated using the visual analogue scale (VAS), the muscle strength test, the Jebsen-Taylor functional test and the Buck-Gramcko test.

Results: It was observed that there were no significant differences at the level of 5%, in the variables of grip strength, VAS, Jebsen-Taylor functional test or Buck-Gramcko/Lohmann test, between the pathological conditions.

Conclusion: Total arthrodesis of the wrist using a plate in the dorsal region was shown to be a safe and efficient technique for patients with different types of pathological arthrosis of the wrist, since it did not cause any important functional incapacity and brought great pain relief.

© 2014 Sociedade Brasileira de Ortopedia e Traumatologia. Published by Elsevier Editora Ltda. All rights reserved.

☆ Work performed in the Hospital Estadual de Traumatologia e Ortopedia Dona Lindu, Paraíba do Sul, RJ, Brazil.

* Corresponding author.

E-mail: brunoaraujo-ortopedia@hotmail.com (B. de Araujo Silva).

<http://dx.doi.org/10.1016/j.rboe.2015.08.017>

2255-4971/© 2014 Sociedade Brasileira de Ortopedia e Traumatologia. Published by Elsevier Editora Ltda. All rights reserved.

Artrodese ainda é uma boa indicação na artrose não inflamatória do punho?

R E S U M O

Palavras-chave:

Artrose
Punho
Artrodese do punho

Objetivo: Avaliar objetiva e subjetivamente a função do punho, após artrodese total, em pacientes com sequelas de artrite não inflamatória tratados com fixação interna rígida com placa tipo DCP.

Métodos: Foram tratados 32 pacientes com sequelas de artrite degenerativa não inflamatória com artrodese total do punho. Desses, dois foram tratados com fios de Kirschner e quatro descontinuaram o tratamento. Restaram 26. As indicações para a artrodese do punho foram pacientes com patologias intracarpais. Oito punhos apresentavam sequela de fratura radiodistal, 13 sequelas de fratura do escafoide e cinco sequelas de doença de Kienbock. Foram usados para a avaliação a escala visual analógica (EVA), o teste de força muscular, o teste funcional de Jebsen-Taylor e o teste de Buck-Gramcko.

Resultados: Observou-se não existir entre as patologias diferença significativa, no nível de 5%, nas variáveis da força de preensão, EVA, teste funcional de Jebsen-Taylor e de Buck-Gramcko/Lohmann.

Conclusão: A artrodese total de punho, com placa na região dorsal, demonstrou ser uma técnica eficiente e segura para os pacientes com diferentes tipos de patologias de artrose de punho, por não causar incapacidade funcional importante e trazer um grande alívio da dor.

© 2014 Sociedade Brasileira de Ortopedia e Traumatologia. Publicado por Elsevier Editora Ltda. Todos os direitos reservados.

Introduction

Total arthrodesis of the wrist has become a standard procedure for degenerative wrist arthritis.^{1,2} Traditionally, wrist arthrodesis is the treatment for wrist arthritis that does not respond to anti-inflammatory medications, immobilizers and corticosteroid injections, even though it substantially diminishes the functioning of this joint.³

Arthritis in this joint has several causes, including the following: sequelae of intra-articular fractures, skewed consolidation subsequent to distal fracturing of the radius, tearing of the interosseous ligaments, avascular necrosis, inflammatory diseases and congenital diseases.² In cases of non-inflammatory diseases, wrist arthrodesis provides pain relief and increases the grip strength of the hand.

Many techniques have been used to perform wrist arthrodesis, such as use of crossed Kirschner wires, intramedullary pins, and plates and screws with or without associated use of bone grafts.^{4,5} Rigid internal fixation with different types of plates not only reduces the pain and enables the return to work, but also makes osteosynthesis easy and safe. Through using dorsal plates, consolidation rates of between 93 and 100% have been achieved, with low complication rates.^{1,2,6-9}

The aim of the present study was to evaluate limb function after total wrist arthrodesis in patients with sequelae of non-inflammatory arthritis that was treated by means of rigid internal fixation with a DCP plate in the dorsal region of the wrist.

Material and methods

Between October 21, 2010, and January 2014, 32 patients with sequelae of non-inflammatory degenerative arthritis were

treated by means of total wrist arthrodesis. The procedure was firstly approved by the hospital's ethics committee. Among these, two were treated with Kirschner wires and four discontinued the treatment. Thus, 26 patients remained. The inclusion factors were that the patients would have sequelae of intra-articular wrist fractures, skewed consolidation subsequent to distal fracturing of the radius and restrictive carpal pathological conditions (such as Kienbock's disease). The exclusion factors were the presence of inflammatory degenerative diseases and extracarpal pathological conditions (such as neuromuscular diseases, lesions of periarticular soft tissues, tumor resections and sequelae of nerve injuries). All the patients were treated by means of rigid internal fixation with a DCP plate in the dorsal region of the wrist. Sex, age, side and dominance are presented in [Table 1](#).

The indications for wrist arthrodesis were cases of patients with intracarpal pathological condition. Eight wrists presented sequelae of radiodistal fractures, 13 had sequelae of fractures of the scaphoid and five had sequelae of Kienbock's disease.

Table 1 – General description of the sample.

Characteristic	Description	Quantity	Percentage
Sex	Male	20	77%
	Female	6	23%
Side	Right	17	65%
	Left	9	35%
Dominance	Yes	17	65%
	No	9	35%

Source: Files of the hospital service.

Mean age of 50.38 years with a standard deviation of 11.44 years.

Download English Version:

<https://daneshyari.com/en/article/2718181>

Download Persian Version:

<https://daneshyari.com/article/2718181>

[Daneshyari.com](https://daneshyari.com)