

CLINICAL AND RADIOLOGICAL EVALUATIONS OF THE INTRAMEDULLARY K-WIRE COMPARED WITH SMALL DCP 3,5 mm SURGICAL FIXATIONS IN ADULT PATIENTS WITH 1/3 MIDDLE DISPLACED CLAVICLE FRACTURE

Pamudji Utomo^{1,2)}, Rieva Ermawan^{1,2)}

¹⁾Faculty of Medicine, Universitas Sebelas Maret

²⁾Prof. dr. R. Soeharso Orthopedic Hospital, Surakarta

ABSTRACT

Background: A clavicle fracture is a break in the collarbone, one of the main bones in the shoulder. This type of fracture is fairly common-accounting for about 5 percent of all adult fractures. Most clavicle fractures occur when a fall onto the shoulder or an outstretched arm puts enough pressure on the bone that it snaps or breaks. A broken collarbone can be very painful and can make it hard to move the arm. This study aimed to evaluate the clinical and radiological functions of adult patients with 1/3 middle displaced clavicle fracture after undergoing Intramedullary K-wire compared with small DCP 3.5 mm surgical fixation.

Subjects and Method: This was a cohort study conducted at Prof. Dr. R. Soeharso Orthopedic Hospital, Surakarta, Central Java, from February to April 2012. A total of 67 patients with 1/3 middle displaced clavicle fracture were selected for this study, consisting of 33 with Intramedullary K-wire operation and 34 with small DCP 3.5 mm operation. The dependent variables were clinical and radiological functions. The independent variables were type of surgical operation (Intramedullary K-wire fixation versus small DCP 3.5 mm fixation). Clinical function was measured by Disability of Arm, Shoulder and Hand (DASH) score. Radiological function was measured by Perkin time table. The data were compared by independent t-test.

Results: Difference in mean scores of DASH and radiological presentation between patients undergoing Intramedullary K-wire operation and counterparts undergoing small DCP 3.5 mm operation were not statistically significant.

Conclusion: Both surgical treatment by Intramedullary K-wire and small DCP 3.5 mm result in comparable clinical and radiological functions in patients with 1/3 middle displaced clavicle fracture.

Keywords: Intramedullary K-wire, small DCP 3.5 mm, 1/3 middle displaced clavicle fracture, clinical function, radiological function.

Correspondence:

Pamudji Utomo. Faculty of Medicine, Universitas Sebelas Maret, Surakarta, Central Java. Email: pamudjiutomo@gmail.com. Mobile: 08122585888.