

Efficacy of Cannulated Nail and Plate in the Treatment of Calcaneal Fractures: a Meta-Analysis

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SUMMARY. Comparing the effectiveness of Cannulated Nail and plate in the treatment of calcaneal fracture has been performed because it can provide certain reference value for clinic. Randomized controlled trial studies on Cannulated Nail and plate in the treatment of calcaneal fracture were searched in PubMed, PMC and other databases, and literature was screened according to the screening rules. Quality assessment was conducted on the identified literature, and valid results were extracted from the articles that passed the quality assessment. Meta-analysis was performed using Rev Man 5.41 software. 10 literatures of randomized controlled trials were finally included after analysis. The number of patients with poor treatment effect in the experimental group was lower than that in the control group (95% CI (0.27, 0.78), $p = 0.004$), while the number of patients with excellent effect was higher than that in the control group (95% CI (0.03, 0.16), $p = 0.004$). The differences of Bohler Angle (95% CI (-0.51, 1.59), $p = 0.32$) and Gissane Angle (95% CI (-3.32, 2.03), $p = 0.64$) between the two groups were no significant difference. The results showed that mean operative time (95% CI (-33.34, -5.10), $p = 0.008$), length of stay (95% CI (-7.24, -2.01), $p = 0.0005$), operative blood loss (95% CI (-76.89, -30.75), $p < 0.00001$) and complication (95% CI (0.16, 0.38), $p < 0.00001$) of the experimental group were significantly lower than those of the control group. The efficacy and safety of Cannulated Nail were higher than those of plate therapy.

RESUMEN. Se ha realizado una comparación de la eficacia del clavo canulado y la placa en el tratamiento de la fractura de calcáneo porque puede proporcionar cierto valor de referencia para la clínica. Se buscaron estudios de ensayos controlados aleatorios sobre clavo canulado y placa en el tratamiento de la fractura de calcáneo en PubMed, PMC y otras bases de datos, y se revisó la literatura de acuerdo con las reglas de selección. Se realizó una evaluación de calidad de la literatura identificada y se extrajeron resultados válidos de los artículos que pasaron la evaluación de calidad. El metanálisis se realizó con el software Rev Man 5.41. Finalmente se incluyeron 10 publicaciones de ensayos controlados aleatorios después del análisis. El número de pacientes con un efecto deficiente del tratamiento en el grupo experimental fue menor que en el grupo de control (IC del 95% (0,27; 0,78), $p = 0,004$), mientras que el número de pacientes con un efecto excelente fue mayor que en el grupo de control. grupo (IC95% (0,03, 0,16), $p = 0,004$). Las diferencias del ángulo de Bohler (IC del 95% (-0,51, 1,59), $p = 0,32$) y el ángulo de Gissane (IC del 95% (-3,32, 2,03), $p = 0,64$) entre los dos grupos no fueron diferencias significativas. Los resultados mostraron que el tiempo operatorio medio (IC 95% (-33,34, -5,10), $p = 0,008$), la duración de la estancia hospitalaria (IC 95% (-7,24, -2,01), $p = 0,0005$), la pérdida de sangre operatoria (IC 95% (-76,89, -30,75), $p < 0,00001$) y las complicaciones (IC del 95% (0,16, 0,38), $p < 0,00001$) del grupo experimental fueron significativamente menores que los del grupo de control. La eficacia y seguridad del clavo canulado fueron mayores que las de la terapia con placas.

KEY WORDS: calcaneal fracture, cannulated nail, meta-analysis, plate,

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