Abstract:
This study intends in evaluating the comparison between arthroscopic arthrodesis and open surgery by performing a systemic and meta-analysis. A literature search for the systemic review was conducted using four English databases (Pubmed, Embase, Medline and the Cochrane Library), up to August 2019. These included two prospective cohort study and 7 retrospective cohort studies, enrolling a total of 507 patients with ankle arthritis. For fusion rate, the pooled data showed significantly higher rate of fusion during the arthroscopic arthrodesis compared with open surgery (odds ratio 0.25, 95% CI 0.11 to 0.57, p = 0.0010). Regarding to the estimated blood loss, the pooled data showed significantly smaller blood losses during arthroscopic arthrodesis as compared with open surgery (WMD 52.04, 95% CI 14.14 to 89.94, p = 0.007). For tourniquet time, the pooled data showed smaller tourniquet time during arthroscopic arthrodesis compared with open surgery (WMD 22.68, 95% CI 1.92 to 43.43, p = 0.03). In the length of stay in the hospital, the pooled data showed less time of hospitalization for patients undergoing arthroscopic arthrodesis compared with open surgery (WMD 1.62, 95% CI 0.97 to 2.26, p < 0.00001). The pooled data showed better recovery for the patients who experienced arthroscopic arthrodesis as compared with open surgery at 1 year (WMD 14.73, 95% CI 6.66 to 22.80, p = 0.0003).
In conclusion, arthroscopic arthrodesis seems to be associated with a higher fusion rate, lesser amount of estimated blood loss, shorter tourniquet time, shorter length of hospitalization and better functional improvement at 1 year.

Biography:
Mok is studying M.B.B.S. in International School of Jinan School in Guangzhou, China. He, now, is a houseman in First-affiliated Hospital of Jinan University, in Guangzhou in China.

Publications:
Open versus arthroscopic ankle arthrodesis: a systematic review and meta-analysis

International Conference on Physiotherapy, Kinesiology and Sports Medicine, Osaka, Japan, February 19-20, 2020