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ULNAR SHORTENING OSTEOTOMY IS AN EFFECTIVE TREATMENT FOR ULNAR IMPACTION SYNDROME IN A HIGH DEMAND ATHLETIC POPULATION

Introduction: Ulnar shortening osteotomy (USO) continues to be one of the gold standard operative treatment for ulnocarpal impaction, broadly characterized by ulnar-sided wrist pain. While various clinical indications and situations exist for the utilization of an USO, the overall goal of the procedure is to not only resolve the underlying pathology, but moreover to return the patient to prior levels of activity. While literature suggests excellent functional outcomes after surgical intervention with low complication rates, few studies have been conducted to analyze the rate return to sport or active military service. Therefore, this retrospective study aims to review return-to-duty rates among adult, active-duty military members who underwent USO in an effort to improve management and minimize delayed return to work, sport or activity.

Methods: Retrospective review of patients at a single institutional from 2013 to 2020 who underwent ulnar shortening osteotomy with or without wrist arthroscopy with associated procedures by multiple fellowship trained Orthopedic Hand surgeons. Exclusions criteria were those undergoing ulnar shortening osteotomy secondary to trauma or malunions related to trauma. Inclusion criteria were age 18 to 65, those on active duty, greater than 1 year follow up and documentation of return to duty and with what restrictions if any. Return to duty rates to include those on limited activities or restrictions based on the procedures were noted as well as any complications.

Results: There was a total of 19 Active-duty personnel. 17 males and 2 females with an average of 33 years of age. This included 8 Soldiers, 4 Airman, 3 Sailors and 4 Marines. 17/18 (94%) were able to return to Duty. 2/8 (25%) were on a permanent profile due to the surgery. 1/18 (5.6%) underwent medical evaluation board (MEB) resulting in their discharge from active military service. There were 6 total complications, 3 of which required revision surgery (2 for non-union and 1 for delayed union and 1 for hardware irritation). All who underwent revision surgery were able to return to full active duty.

Conclusions: Our study demonstrates that 94% were able to return to duty and perform all tasks to include their service specific physical requirements (push-ups, pull-up, ammo can carry etc). Despite 3/19 requiring revision surgery all were able to eventually return to duty and all eventually went on to union. This is a safe, reliable surgery which is successful at getting military personnel to bear weight and return to high demand athletic careers.

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