Background: The purpose of this study is to discuss the effectiveness of immobilizing a scaphoid waist fracture using a long arm thumb spica cast for eight to twelve weeks with cast changes every two to three weeks to prevent loosening of the cast. This case study involved a 17-year-old male, high school football player, who reported that he fell on an outstretched arm while diving for a pass in practice that caused a dull, deep pain in his wrist. The patient also noted that he had no prior history of hand injuries. The patient had a prominent decrease in ROM in the distal third of his wrist and complained of dull, deep discomfort in the wrist on his radial side. During the evaluation, the patient had severe point tenderness over the distal third of his wrist, mild swelling and ecchymosis over the scaphoid and effusion of the wrist over the anatomical snuff box. The patient was then referred to the team physician.

Differential Diagnosis:
1. Radial Collateral Wrist Sprain
2. Scaphoid fracture
3. Colles fracture
4. Fracture to the base of the 1st metacarpal
5. Radioulnar joint pathology
6. Flexor and extensor carpi radialis pathology

Treatment: Radiographic views of the right hand revealed a scaphoid waist fracture, which is a fracture that is localized within the proximal, middle (waist), or distal third of the bone. Standard plan of treatment would be casting for immobilization. The patient was put in a long arm thumb spica cast to immobilize the waist of the scaphoid for approximately eight to twelve weeks. The cast was removed and reapplied twice during the immobilization period to prevent the cast from loosening. The patient was instructed to wear a pad over the cast during football practice, and was to participate in running activities only, with no physical contact. After immobilization was complete a three week rehabilitation program was initiated consisting of ROM and strength exercises including supination, pronation, and grip strength. The patient was not allowed to RTP for 3-4 months due to fracture location, patient’s age, sport, and the level of competition.

Uniqueness: This case was unique because the athlete was immobilized for 2 months vs. 3-4 months. Immobilization was discontinued due to the progressive healing process of the scaphoid. Although the athlete was non-compliant with the physicians’ orders and engaged in physical contact while the cast was still intact, no further injury took place. Immobilizing with a long arm cast was successful, although some scaphoid fractures involve Open Reduction Internal Fixation. The immobilization followed by the rehabilitative program for three weeks after the cast was off helped the athlete RTP a month and a half earlier than expected. Immobilization in a long arm cast and the rehabilitative program to strengthen the athlete was a very effective plan of action in treating a scaphoid waist fracture.

Conclusion: The patient responded well to treatment in that his RTP was a month and a half earlier than expected. Immobilization of a scaphoid waist fracture with a long arm thumb spica cast seemed to be the best plan of action for treatment. The patient is now doing exceptional and has returned to full participation. Immobilization in a long arm cast and the rehabilitative program to strengthen the athlete was a very effective plan in treating a scaphoid waist fracture.

Key Words: Scaphoid Waist Fracture