Post-Traumatic Painful Ankle Joint: MRI Evaluation

Thesis Submitted for

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بسم الله الرحمن الرحيم

(ولله غيب السموات والارض واليه
يرجع الامر كله فأعبده وتوكل عليه
وما ربك بغفل عما تعملون)

(صدق الله العظيم)

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LIST OF ABBREVIATIONS

AP	Antero-Posterior
AITFL	Anterior inferior tibiofibular ligament
ATFL	Anterior Talo Fibular Ligament
ATT	Anterior Talo Tibial
CFL	Calcaneo Fibular Ligament
CT	Computed Tomography
CU	Cuboid Bone
DPN	Deep Peroneal Nerve
EHL	Extensor Hallucis Longus
FDL	Flexor Digitorum Longus
FHL	Flexor Hallucis Longus
FOV	Field of view
FSE	Fast Spin Echo
GE	Gradient Echo
MRI	Magnetic Resonance Imaging
MR	Magnetic Resonance
MTP	Metatorso-phalangeal
PITFL	Posterior inferior tibiofibular ligament
PTFL	Posterior Talo Fibular Ligament
PT	Posterior Tibial
SPN	Superficial Peroneal Nerve
STIR	Short Time inversion Recovery
TE	Echo time
TOF	Time-of-Flight
TR	Repetition Time

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Introduction:

Magnetic resonance imaging has opened new horizons in the diagnosis and treatment of many musculoskeletal diseases of the ankle. It demonstrates abnormalities in the bones and soft tissues before they become evident at any other imaging modalities. The exquisite soft tissue contrast resolution, non-invasive nature and multiplanar capabilities of MR imaging, make it especially valuable for the detection and assessment of a variety of soft tissue disorders. It is also excellent for early detection and assessment of osseous abnormalities. MR imaging is increasingly being recognized as a modality of choice for assessment of pathologic condition of the ankle joint.

[Rosenberg Z. et al., 2000]

MRI has become the dominant imaging modality for assessing soft tissue disorders of the ankle. It is useful in evaluating patients with acute or chronic ankle pain or instability. Conventional radiographs in conjunction with clinical examination remains the primary method for evaluating ankle injury. Injuries are initially treated based on physical examination. MRI imaging with its multiplanar capability and