

IS ANKLE DISLOCATION WITHOUT FRACTURE A RARE OCCURRENCE IN NORTHERN GHANA? A REPORT ON FOUR CASES

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ABSTRACT

The ankle joint proper or tibio-talar joint or talo-crural joint connects the leg to the foot. It is a stable, synovial, hinge joint with plantar-and dorsi-flexion movements. The ankle joint may also be defined to include the region embracing the distal tibio-fibular joint (Syndesmosis), the tibio-talar joint and the sub-talar joints. Ankle joint stability depends on the "Ankle mortise shape" architecture, the presence of a strong joint capsule and ligaments (Deltoid, the anterior talo-fibular, calcaneo-fibular and posterior talo-fibular ligaments, not forgetting the syndesmosis). Large amount of force is therefore needed to be applied to the ankle to cause ankle joint dislocation, without fractures [18]. Literature states [13,14] that the condition is rare. The objective of this study was to highlight the rarity or otherwise of the injury in Northern Ghana. A descriptive retrospective study of four (4) cases, two (2) closed antero-lateral and two (2) opened lateral tibio-talar dislocations without fractures, spanning from June 2009 to December 2013 was undertaken. All patients were males, who were involved in road traffic accidents as high energy trauma [18] within Northern Ghana. The first two of these patients were aged 25 and 28 years, with missed diagnosis of their conditions for three (3) and four (4) weeks respectively prior to self-reporting to Tania Specialist Hospital, Tamale, Ghana: and the other two (2) patients were both 30 years old. They presented with fresh, opened lateral ankle dislocations within six hours following the accidents. Following patients stabilization, emergency surgical wound exploration, tissue debridement, wound irrigation, talus reduction, joint capsule and anterior talo-fibular ligament repair without tension with vicryl-0 suture, a flat drain was inserted. Primary wound closure was accomplished. Control radiographs were done intra operatively with the C-Arm machine and a below knee circular POP cast was applied, with a window for wound dressing. Post-operatively, the "RICE" (R=Rest, I=Immobilise, C=Cool, E=Elevate) principle was observed for 10-12 days. Post-discharge immobilization continued for six (6) weeks for opened dislocated cases and eight (8) weeks, for closed missed diagnosed cases and the rest of the follow-up schedule were three (3) months, six (6) months and nine (9) months. Full body weight bearing was authorized at the (6) sixth month visit, when painless and full ankle movements were elicited.

Conclusion: The otherwise rare injuries around the world, (pure dislocations of the ankle joint) are now common in Northern Ghana. The rate, complexity and severity of road traffic accidents in Northern Ghana is alarming. Detailed history taking, complete physical examination and radiographs investigations are essential for correct and early diagnosis, management or referral.

Keywords: Trauma, injury, ankle dislocation, Northern Ghana.