

ISOLATED CLOSED TARSAI NAVICULAR DISLOCATION MANAGED BY OPEN REDUCTION AND K-WIRE FIXATION A CASE REPORT

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INTRODUCTION

ISOLATED DISLOCATION OF THE TARSAI NAVICULAR IS AN EXTREMELY RARE MIDFOOT INJURY DUE TO THE STRONG LIGAMENOUS SUPPORT OF THE TALONAVICULAR JOINT. IT USUALLY RESULTS FROM HIGH-ENERGY TRAUMA SUCH AS ROAD TRAFFIC ACCIDENTS AND IS OFTEN MISSED ON INITIAL EVALUATION. EARLY RECOGNITION AND ANATOMICAL REDUCTION ARE THEREFORE ESSENTIAL FOR A GOOD FUNCTIONAL OUTCOME.

CASE REPORT

A 47Y/M CAME TO OPD WITH COMPLAINTS OF PAIN, SWELLING, AND DEFORMITY OF THE MIDFOOT. H/O RTA 2MONTHS BACK. O/E DIFFUSE MIDFOOT SWELLING WITH TENDERNESS AND DEFORMITY, WHILE DISTAL NEUROVASCULAR STATUS WAS INTACT. PLAIN RADIOGRAPHS OF THE FOOT SHOWS DISLOCATION OF THE TARSAI NAVICULAR. CT WAS PERFORMED TO FURTHER EVALUATE THE INJURY AND CONFIRMED AN ISOLATED CLOSED NAVICULAR DISLOCATION WITHOUT ANY ASSOCIATED FRACTURES. AND THE PATIENT WAS ADVISED STRICT NON-WEIGHT BEARING.

OPERATIVE FINDINGS

ORIF THE TALONAVICULAR JOINT WAS PERFORMED THROUGH A DORSOMEDIAL APPROACH. INTRAOPERATIVELY, THE NAVICULAR WAS FOUND TO BE DISPLACED WITH DISRUPTION OF THE TALONAVICULAR JOINT CAPSULE, AFTER ACHIEVING ANATOMICAL REDUCTION, THE JOINT WAS STABILIZED USING K WIRES UNDER FLUOROSCOPIC GUIDANCE. ADEQUATE ALIGNMENT AND STABILITY WERE CONFIRMED BY C-ARM. THE LIMB WAS IMMOBILIZED POSTOPERATIVELY.



DISCUSSION

ISOLATED NAVICULAR DISLOCATIONS ARE RARE DUE TO THE INHERENT STABILITY OF THE MIDFOOT. HIGH-ENERGY TRAUMA IS USUALLY REQUIRED TO DISRUPT THE STRONG LIGAMENOUS STRUCTURES. DIAGNOSIS CAN BE CHALLENGING, AND ADVANCED IMAGING SUCH AS CT SCAN PLAYS A CRUCIAL ROLE IN IDENTIFYING THE INJURY AND RULING OUT ASSOCIATED FRACTURES. CLOSED REDUCTION MAY BE ATTEMPTED INITIALLY; HOWEVER, OPEN REDUCTION WITH STABLE FIXATION IS OFTEN REQUIRED TO ACHIEVE AND MAINTAIN ANATOMICAL ALIGNMENT. EARLY SURGICAL INTERVENTION HELPS RESTORE JOINT CONGRUITY AND PREVENTS LONG-TERM COMPLICATIONS SUCH AS MIDFOOT ARTHRITIS AND FUNCTIONAL IMPAIRMENT.

CONCLUSION

ISOLATED TARSAI NAVICULAR DISLOCATION IS A RARE BUT SERIOUS INJURY THAT REQUIRES A HIGH INDEX OF SUSPICION. EARLY DIAGNOSIS, ACCURATE IMAGING, AND PROMPT ANATOMICAL REDUCTION WITH STABLE FIXATION ARE KEY TO ACHIEVING GOOD FUNCTIONAL OUTCOMES AND PREVENTING LONG-TERM MORBIDITY.



AFTER 6 MONTHS

