Bosworth fracture dislocation of the ankle: 
a frequently missed injury

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I. Objective

We present a case of the rare Bosworth fracture dislocation of the ankle and emphasize the specific clinical and radiological signs to aid its early diagnosis.

II. Methods

A 26-year old patient sustained a severe external rotation injury to the right ankle in combination with direct trauma. Clinical examination showed an externally rotated foot and tibiotalar dislocation.

Open reduction and internal fixation of the fibula by a lag screw and neutralisation plate. Postoperative radiographs (Fig. 4 a, b) show a correctly restored anatomy.

III. Results

IV. Conclusion

This rare type of irreducible ankle fracture dislocation, characterized by postero-medial displacement and locking of the proximal fibular fragment behind the posterolateral ridge of the distal tibia, was described by Bosworth 1947.1 To date only about 30 cases have been reported in literature. The injury often remains unrecognized and permanent disability can occur in case of inappropriate treatment. Treatment of choice is the immediate open reduction and internal fixation to restore anatomy.2

Fig. 1 (a, b): Weber type-B lateral malleolar fracture with persistent tibiotalar dislocation.

Fig. 2 (a,b): External fixation was applied after successful closed reduction of the tibiotalar joint. Intraoperative radiographs reveal a correctly aligned tibiotalar joint, albeit displaying the persistent postero-medial displacement of the proximal fibula.

Fig. 3 (a): 3D CT-scan reconstruction, oblique view; b: sagittal cut; c: transverse cut: Postoperative CT-scan confirm the persistent postero-medial displacement of the fibula.

Fig. 4 a, b: Postoperative radiographs of the ankle showing a correctly restored anatomy.

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