

TRIGONUM BONE SYNDROME IN ATHLETES: ABOUT 3 CASES

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1. INTRODUCTION

The trigonum bone or posterior talus process is an accessory bone found on the postero-external face of the talus in 3-15% of the general population.

KEYWORDS: Ankle, trigonum bone.

It appears as a secondary center of ossification at the age of 8-11 years and which normally merges with astragalus within a year.

This is an extremely disabling pathology in the event of sports practice requiring maximum plantar flexion of the ankle.

We report a series of 3 cases with the clinical, therapeutic and evolutionary aspects of this pathology.

1. OBSERVATION

- Three men, professional soldiers, aged 28, 31 and 34, respectively, presented pain in the posterior or posterior external region of the heel with notion of initial trauma in 2 patients (ankle sprain).
- The clinical examination of the ankle found posterolateral tenderness in all cases.
- A standard radiological assessment (face and profile x-ray of the ankle) was carried out in all patients and had shown the presence of the trigonum bone, all our patients underwent an MRI of the ankle, which made it possible to " assert the imputability of the trigonum bone in the genesis of painful phenomena.
- All received first-line medical treatment based on analgesics and non-steroidal anti-inflammatory drugs (NSAIDs) with cast immobilization of the ankle for 15 days, and corticosteroid injections.
- All the subjects were operated on by a posterolateral approach, which allowed a resection of the os trigonum.



Fig. 1: Profile x-ray of the ankle showing the trigonum bone.



Fig. 2: CT of the ankle showing the trigonum bone.



Fig. 3: 3D ankle reconstruction showing the prominent trigonum bone.



Fig. 4: MRI of the ankle showing signs of tissue suffering in the os trigonum area.



Fig. 5: the resected os trigonum.

2. RESULTS

All the patients were reviewed with a mean follow-up of two years, the functional results were based on the following criteria: the AOFAS score 100 points (American Orthopedic Foot and Ankle Society), resumption of sport, and patient satisfaction.

Pain was absent in all cases after surgical treatment, the mean functional score increased from 15 to 20 points, and sport was resumed in the 3rd month. Only one patient retained dysesthesia in the sural nerve territory, having recovered after 2 months.

3. CONCLUSION

The trigonum bone syndrome is a rare condition affecting mainly young athletes, which can be responsible for significant functional discomfort, especially in the case of regular sports practice. Standard radiography and MRI allow a positive diagnosis to be made. Treatment is primarily medical; in case of failure, a simple resection can obtain satisfactory results with a rapid resumption of sports activities.

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