# Treatment and Rehabilitation of Os Trigonum Syndrome: A Systematic Review

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## Background
- Os trigonum is a congenital bony ossicle located on the posterior talus, with reported prevalence in the general population between 12.7-23.5%.
- An increased prevalence is seen in classical ballet dancers, with os trigonum being the cause of 30% of posterior ankle pain.
- While an os trigonum is often asymptomatic, athletes that undergo repetitive and/or forced plantar flexion motions such as dancers, soccer players, and runners are at risk for os trigonum syndrome.

## Purpose
This systematic review examined the current literature for best available evidence for treatment and rehabilitation for os trigonum syndrome in athletes.

## Methods
- **Data Sources**
  - PubMed
  - Search conducted in May 2019
- **Inclusion Criteria**
  - Athlete or dancer population
  - Diagnosis of os trigonum
  - Intervention performed
- **Exclusion Criteria**
  - Unavailable in English
  - Surgical technique focus
  - Os trigonum not the primary diagnosis
- **Data Extraction**
  - Chosen conservative or surgical interventions
  - Return to activity/outcome measures
  - Modified Downs and Black Risk of Bias Tool

## Results
### INCLUDED ARTICLES
- 18 articles total
- 1 Randomized control trial
- 2 Retrospective cohort
- 15 Case series/report
- *All articles had moderate/high risk of bias*

### STUDY PARTICIPANTS
- 250 Total athletes
  - 61% Dancers
  - 20% Soccer Players
  - 8% Track and Field
  - 10% Other/not reported

### CONSERVATIVE INTERVENTION
- Corticosteroid Injections
- NSAIDS
- Activity Modification
- Physical Therapy Treatment

### SURGICAL INTERVENTIONS
- 10 utilized open procedure
- 8 utilized endoscopic procedure
- 2 studies compared the two

### RETURN TO ACTIVITY
- Time Frame: 2 wks - 5 mos
- Outcome Measures varied
- 98% of athletes returned to previous level of activity

## Conclusions
- No standardization of conservative care
- No consensus on open vs endoscopic excision
- Generalizability among other athletic populations?
- More rigorous studies needed!

## Clinical Relevance
- This review gives an overview of current management of os trigonum syndrome and highlights the gaps in the literature. This is especially relevant in treating athletic populations that are at increased risk due to repetitive and forced plantarflexion motions.

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