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*Original Article*

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## THE VALUE OF TIBIOASTRAGALAR ARTHRODESIS FOR POSTTRAUMATIC ANKLE ARTHROSIS

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### Abstract

The aim of this study is to demonstrate the value of tibioastragalar arthrodesis as a treatment for arthroses after malleolar fractures, tibial pillar fractures and astragalar fractures.

It is discussed arthroses that appeared after malleolar fractures: neglected, incorrectly treated, without any follow up, complicated (suppuration, vicious callus).

The study includes 90 arthroses: 38 cases (42.2%) with external transperoneal arthrodesis (Adams-Crawford technique); 42 cases (46.4%) with anterior arthrodesis (Watson-Jones technique); 10 cases (11.4%) with anterior arthrodesis (R. Méary technique).

The results were very good and good in 84 cases (93.3%) and unsatisfactory in 6 cases (6.7%). In most cases of posttraumatic painful tibioastragalar arthrosis, arthrodesis' results are good and very good. For this reason we recommend it fully convinced.

**Keywords:** ankle fractures, arthrosis, arthrodesis, external path, anterior path

### Rezumat

Obiectivul acestui studiu este de a demonstra valoarea artrodezei tibioastragalare, în tratamentul artrozelor după fracturi maleolare, tibiale și astragalare.

Sunt descrise artrozile care apar după fracturile maleolare neregulate, incorect tratate sau complicate cu supurații și calus vicios.

Studiul este realizat pe 90 de cazuri de artroze: 38 (42,2%) cu artrodeză transperoneală (tehnica Adams-Crawford), 42 cazuri (46,4%) cu artrodeză anterioară (tehnica Watson-Jones) și 10 cazuri (11,4%) cu artrodeză anterioară (tehnica R. Méary).

Rezultatele au fost foarte bune și bune în 84 cazuri (93,3%) și nesatisfăcătoare în 6 cazuri (6, 7%). În majoritatea cazurilor de artroză tibioastragală dureroasă

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*posttraumatică, artrodeza are rezultate bune, motiv pentru care o recomandăm în practică.*

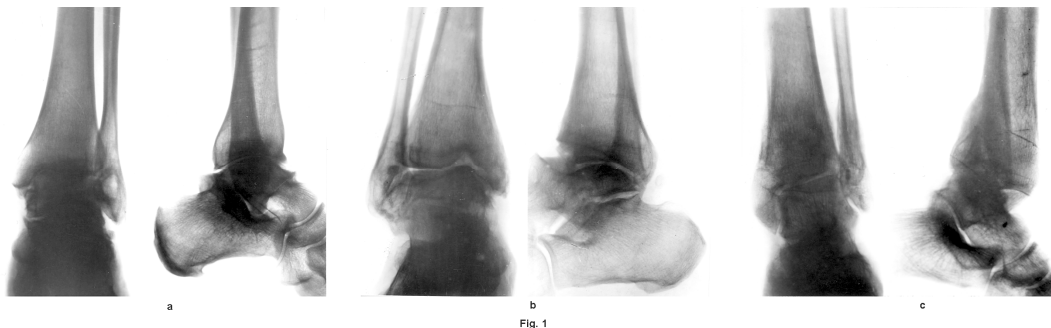
**Cuvinte-cheie:** *fracturi angulare, artroză, artrodeză, plastie anterioară, plastie externă*

We refer only to arthritis installed after neglected, incorrectly treated, or complicated maleolar fractures. These complications are not rare. They require a rigorous, well marked treatment in order to avoid questionable results or failures. The scope is demonstrating the value of tibioastragalar arthrodesis in arthrosis performed after maleolar and tibial pillar fractures.

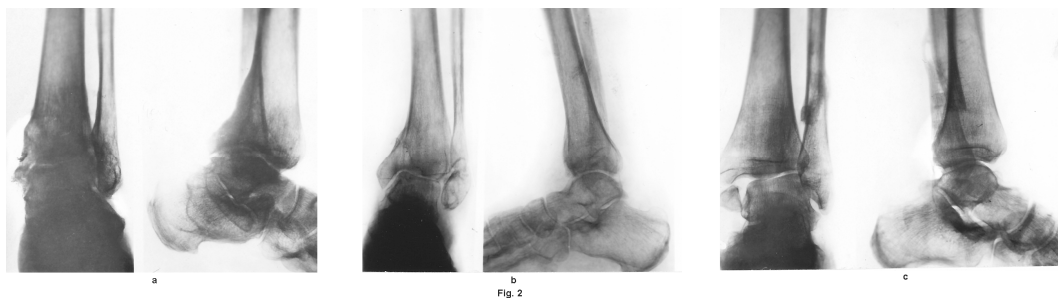
The tibioastragalar arthrosis' etiopathogenesis has local and regional causes. As local causes there are the mechanical, static and trophic factor (1, 2) .

The pathogenic mechanism is intricate and complex and is based on vicious circles. Joint incongruity and misalignment lead to uneven loading of joint surfaces resulting in localized condral wear and subcondral sclerosis. Other mechanisms are disruption of local blood circulation leading to sclerosis of periarticular soft tissues (3).

As regional causes there are vicious consolidated leg fracture leading to ankle misalignment. Subastragalar and / or mediotarsal arthrodesis leads to tibioastragalar joint overloading, especially when the technique was not perfect. (Figure no. 1, 2, 3, 4).



**Figure 1**



**Figure 2**