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EDITORIAL

# Ankle arthroscopy: the wave that's coming

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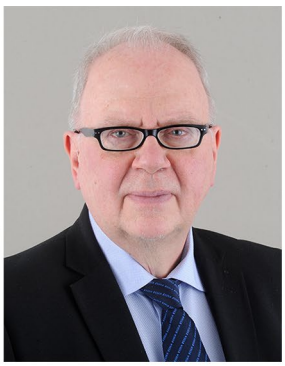
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Increased interest in ankle pathology and arthroscopic procedures has been observed in the last few years and this KSSTA special issue is a good example of this [2–8, 10, 14–22, 24–30].

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In 2016, the KSSTA presented a special issue on ankle joint disorders following lateral ankle sprains. At that time, the editors wrote: "With the growing knowledge on ankle joint disorders, it appears that this injury (referring to the lateral ankle sprain) causes more damage to the ankle joint than was previously assumed" and they claimed that "There is no simple lateral ankle sprain" [12].

Ankle sprain is a common problem [31]; most individuals may suffer one or more in their lives and chronic ankle complaints can be the result in nearly half of them. An inversion ankle sprain, the most common ankle trauma, involves a lateral ligament injury that apparently does not always heal properly, resulting in chronic pain in approximately 30–40% of patients [9], numbers which are most probably underestimated. The new evidence presented in this special issue states that the most probable reason for this is the intra-articular location of the superior fascicle of the anterior talofibular ligament, which is the first part of the ligament to be injured in an inversion ankle sprain [5, 25]. Its intra-articular disposition could explain its impaired ability for healing and injury to this small fascicle will not cause traditional ankle instability but rather a low degree of instability or microinstability. On the other hand, an injury affecting the rest of the lateral ligaments would cause lateral ankle instability. As has been observed at the Barcelona School of Orthopedic Surgical Anatomy, the ATFL's inferior fascicle and the CFL

are connected by arciform fibres and they form the lateral fibulotalocalcaneal ligament (LFTCL) complex [25]. The LFTCL complex is an extra-articular ligament complex and thus retains healing capacity. It is an isometric structure and is regarded as the main lateral ankle joint stabiliser [25].

As studies report, secondary intra-articular ankle injuries are a common finding in patients with ankle instability [1, 11, 13, 23], either classical ankle instability or microinstability. Ankle microinstability is regarded as a subtle form of mechanical ankle instability resulting from an injury that affects the ATFL's superior fascicle, while classical ankle instability involves an injury to the LFTCL complex. However, no studies have been conducted to ascertain whether the inverse relationship exists: is ankle instability or microinstability present in those ankles that have some kind of intra-articular pathology? Could it be that the partial injury of the ATFL's superior fascicle remains hidden during the treatment of some or most intra-articular ankle pathology?

We do not have the answer to these questions, but it makes sense that one of the joints where more sprains occur is also the joint where more intra-articular lesions will be found as a direct consequence of these sprains and the resulting instability. In particular, when one of the injured ligaments does not heal properly with conservative treatment… "There is no simple lateral ankle sprain" [12].

The classical open treatment of ankle instability never treats concomitant pathology associated with ankle instability and only focuses on ligament repair or reconstruction. The arthroscopic treatment of ankle instability has the advantage that concomitant intra-articular pathology can be treated simultaneously. As observed in this special issue, arthroscopy has become a real option for treating ankle instability and associated problems. Future evidence will answer the question of whether or not arthroscopy will become the gold standard for the treatment of ankle instability in the future.

The arthroscopic technique has evolved in every joint from diagnostic arthroscopy (first generation) to debridement/resection arthroscopy (second generation) and finally to arthroscopic tissue repair (third generation). This natural evolution is leading to new arthroscopic surgical techniques to repair or reconstruct ankle ligaments. Together with the new concept of ankle microinstability and the advances in the knowledge of the anatomy of the ankle ligaments, this has increased interest in the ankle joint.

Only through a detailed knowledge of ankle anatomy, especially arthroscopic anatomy, and step-by-step learning, can surgeons acquire the ability to reproduce the new arthroscopic techniques for the ankle and, through them, treat patients more effectively. As a consequence, the number of ankle arthroscopic procedures has increased in the last few years worldwide and it will increase even further in the next years as surgeons treat not only major ankle instability but minor or microinstability as well, preventing secondary intra-articular lesions.

A big wave is coming.
Be prepared.

## Compliance with ethical standards

**Conflict of interest** The authors declare that they have no conflicts of interest.

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