CORRESPONDENCE

Fractures of the Ankle Joint: Investigation and Treatment Options

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Put the "Walker" on

At what point in time surgery is performed is certainly dependent on the condition of the soft tissue. That condition is always most favorable during the first 6 hours after trauma. We undertake definitive treatment of Weber type B fractures immediately, whenever possible. Significantly displaced fractures, especially dislocated fractures, are not only promptly reduced but treated as an emergency at any time, day or night; the earlier the treatment, the better the outcome, this also holds true for B fractures. The swelling in poorly reduced and retained fractures hardly ever subsides adequately. Where soft tissue conditions are unfavorable, we use an external fixator until the swelling has disappeared completely; however, the outcome is still not as one would like it to be.

"The prophylactic administration of antibiotics before surgery is standard procedure", it reads in the article. Here, the authors cite the AWMF guideline no. 029–022 as reference. However, this is a S1 guideline published in January 2012, not on May 10, 2014, as stated under References. Perioperative antibiotic prophylaxis (PAP) is only a "can" recommendation, not a "should" recommendation. As any uncritical use of antibiotics, uncritical PAP facilitates the development of resistant pathogens.

We always place the one-third tubular plate in a dorsolateral position. This plate is not pre-bent; when screws are inserted starting at the cranial end and advancing successively towards the caudal end, it acts like a leaf spring due to the fibula's concave profile in this area, resulting in compression and fixation of the fracture. This osteosynthesis is more stable than the outcome achieved with the neutralization plate.

Following surgical treatment, we fit a so-called "walker" (VACO-ped), as it enables early weight-bearing, at least with type B fracture (with type A fractures, it does so anyway). We allow full weight-bearing after one week with the VACO-Ped. For physiotherapy and skin care sessions, the walker is taken off. Its costs are more than offset by savings resulting from the lowered risk of thrombosis, the prevention of atrophy, and the fact that patients can be mobilized, which is of special importance in older patients. The only point still discussed controversially in our department is weight-bearing with the fitted walker in patients with type C fracture.

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Contradictory Weight-bearing Recommendations

Whether all patients selected for conservative treatment should be mobilized in the walker with full weight-bearing needs to be critically discussed. Fracture type, bone quality and the patient's ability to comply with the demands of the aftercare should all be taken into account.

Here, partial or even no weight-bearing for several weeks may be considered. Irrespective of this, the S3 guideline "Prophylaxis of Venous Thromboembolism" as of June 2010 (1) recommends antithrombotic treatment with low-molecular-weight heparin until removal of the immobilizing cast (= lower-leg walker).

To only provide antithrombotic treatment if full weight-bearing is delayed or based on the form of the fracture does not comply with the guideline. With regard to weight-bearing, the authors make contradictory statements within one and the same paragraph. First, pain-adapted full weight-bearing is recommended. However, in the following sentence, they limit the scope of this recommendation. This point should be clarified.

In the last paragraph "Postoperative treatment and rehabilitation", the authors recommend to continue antithrombotic treatment until full weight-bearing and full mobilization have been achieved. In the questions section (question 6), the recommendation is specified to the administration of low-molecular-weight heparin in a weight-adapted dose.

Again, this is in conflict with the guideline cited earlier: On page 65 of the guideline, it is recommended to continue antithrombotic treatment until the cast ("walker") is removed or until partial weight-bearing of 20 kg and a range of motion of 20° in the ankle joint have been achieved. Where necessary, treatment should be continued in the presence of "pre-disposing risk factors". Furthermore, dosing is rather guided by the surgical risk of thrombosis/postoperative immobilization than by the patient's body weight.

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In Reply:

We would like to thank the readers for their positive response to our article. We are pleased that especially colleagues who are not performing surgery could benefit from our article. The fact that this article, independent of the authors' affiliations, has also been used in the education of students, highlights the recognition it has received.

Above all, we like to thank the authors of the two letters for their critical comments which provide additional information.

It is undisputed that surgical treatment should be undertaken as early as possible and that patients with significantly displaced or dislocated fractures require immediate emergency surgery. Our colleagues' notes or rather more specific information with regard to antibiotic prophylaxis and anti-thrombotic treatment are correct. Treatment should be based on the cited guidelines. However, the example of the use of the "walker" in the management of these patients shows once again that decisions made by the treating surgeon based on the specific requirements of an individual patient continue to play an important role.

We believe that this open and critical discussion, especially in *Deutsches Ärzteblatt*, ensures the constantly high quality of continuing medical education.

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Conflict of interest statement
The authors of all contributions declare that no conflict of interest exists.