Is it safe to extract the nail after the anastomosis?

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Dear Sir,

During finger replantations, the nails may have to be extracted. The indications for extracting the nail are artery-only replantations and unsafe vein anastomosis. In 1985, Gordon et al. presented their partial nail removal series after artery-only replantations [1].

We describe two cases of replantation for which vein anastomosis could not be done. One of them was a degloving injury at the nail bed level; the other was a clean-cut injury at the interphalangeal joint level of the thumb. Both patients received intravenous Heparin with a dose of 5000 units per day for seven days.

In both cases, on postoperative first day we determined venous insufficiency in the amputated finger. We extracted the nail at this step, started leech therapy two times a day and local Heparin instillation to the nail bed for every 15 minutes. In both cases, arterial insufficiency started immediately after the nail extracting.

In the literature, it is not clearly specified if nail extracting should be done after or before the anastomosis. Generally in the daily practice, the nail is extracted after determining an unsafe vein anastomosis. Erken et al. indicated that they make the nailbed bleed after artery-only replantations [2]. However, Buntic et al. indicated that they remove the nail before the artery anastomosis as preoperative preparation of the amputate [3].

We attribute the arterial anastomosis failure we were faced with to the roughness of the nail extracting procedure. After we started removing the nail before the artery anastomosis, we have not observed arterial insufficiency in any of the 21 patients. In fact, the sudden onset of arterial insufficiency immediately after extracting the nail strongly suggests that the roughness of nail extracting is the cause of this situation. Thus, we think that anastomoses are safer with the procedure described by Buntic et al. [3].

Despite being presented as minimally damaging to the anastomosis in the literature, we think that the nail extracting is a relatively rough process and no matter how it will be performed, it will inevitably damage the anastomosis.

Therefore, if there is not any firm vein in the amputated part, we recommend that the nail is extracted even before the bone fixation in order to protect our anastomosis.

Conflict of interest statement
The authors have no conflicts of interest to declare.

References
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