

## Femoral pseudoaneurysm: How should it be treated?

We read with interest the article by Duszańska et al. [1] entitled 'Predictors of successful iatrogenic pseudoaneurysm compression dressing repair' recently published in the journal. The authors suggested that compression dressing repair (CPR) might serve as an alternative method of femoral pseudoaneurysm (FPA) management in patients with low forward and reverse velocities of the flow in pseudoaneurysm neck (25.8% of patients). It seemed to be applied for a maximum of 48 hours in their study.

We think that preventing FPA may be as crucial as its treatment in daily practice. We would like to emphasize some points regarding its prevention and treatment. In the first place, the FPA risk factors should be kept in mind. In a recent study by Popovic et al. [2], interventional and electrophysiological procedures, using large-scale sheaths ( $\geq 6$  F) and left groin puncture, were shown to be risk factors by univariate analysis. Among these risk factors, interventional procedures and left groin puncture have been reported as independent predictive factors of FPA. In addition, the operator's experience should be considered as a factor affecting the incidence of vascular complications. The anatomic and fluoroscopic 'landmarks' need to be well known in order to reduce the vascular complication rates.

In FPA management, the ultrasound-guided compression, ultrasound-guided thrombin injection, surgical treatment and CPR suggested by Duszańska

et al. have all been performed with success in selected patients [1, 3]. CPR seems to be appropriate for a small group of patients in whom their FPAs have designated properties. In compressive methods, we suggest that care should be taken in terms of skin necrosis and infection. We had one patient suffering from skin infection and necrosis who we had to send to the plastic surgery clinic. Moreover, it should be emphasized that ultrasound-guided thrombin injection into FPA is a successful treatment in selected cases. Ultrasound-guided thrombin injection may be a viable alternative for patients using anticoagulants, such as patients with a prosthetic valve, because of the low probability of success using compressive methods.

In conclusion, in addition to the treatment methods of FPAs, its risk factors should be kept in mind. All data regarding FPA should be considered before selecting an appropriate treatment method.

### References

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