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Cardiology, Angiology, Pneumology

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“Approximately 8,000 catheter examinations are performed at our clinic every year, of which about 2,500 are coronary interventions and about 650 interventions in the peripheral vessels. For diagnostic angiographies, 2,500 IU of heparin are usually administered at the beginning of the examination, 5,000 IU for interventions in the peripheral vessels and 7,500 IU for coronary interventions, in accordance with our current standard. For longer examinations ACT is generally controlled and heparin given when necessary. For diagnostic interventions, which usually also require a smaller catheter (4 Fr) and less heparin, the catheter is therefore subsequently withdrawn and the puncture site manually compressed for approximately 10-15 minutes depending on the size of the catheter.

Fastening systems are mostly used for interventions (coronary or peripheral). In specific cases, such as after puncture of the brachial artery or retrograde puncture of the popliteal artery, there is, however, no suitable fastening system available, so that even after administration of large doses of heparin, the puncture site must be compressed for a very long time in some cases, which more often leads to complications. These include bleeding, bruising and aneurysm o r arteriovenous fistulae.

We have so far used Hematrix® in various patients for haemostasis and on the whole are positively surprised by its effect.

We have found Hematrix® to be successful especially where access is problematic, such as the transbrachial approach. The compression time was clearly reduced (5-10 minutes instead of more than 30 minutes in many cases) and the patients treated thus far have not complained of complications at the puncture site.

Even those in whom the use of a fastening system was not possible or not successful benefited from Hematrix®.
Furthermore, we used Hematrix® for haemostasis after multiple venous punctures and the insertion of several large catheters (~8 Fr) as well as heparin administration for electrophysiological studies.
In such cases, we have so far always compressed the puncture site manually, since here too no adequate fastening system is available to us following venous puncture. Even in these

cases, we had the impression that bleeding stopped more quickly, which contributed not only to patient comfort but also to a lighter workload for the physicians undertaking the operation.

We can envisage Hematrix® being used in our department in future for patients in whom there appears to be no suitable fastening system (e.g. following venous puncture, brachial access or puncture of peripheral vessels, e.g. in the lower leg) or in whom the puncture site cannot be closed using a fastening system.
Even in patients with a strong bleeding tendency, such as after diagnostic angiography and the administration of more than 2,500 IU of heparin, the use of Hematrix® is a possibility. However, the costs incurred must naturally also be compared with the risk of subsequent bleeding or prolonged compression.

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