

# HemCon® Bandages Prevent Arterial Bleeding After Transradial Coronary Angiography

## Authors

A.J. Wardeh, C. Dille-Amo, H. Ramanna  
Haaglanden Medical Center, The Hague, The Netherlands

## Background

Severe arterial bleeding is the leading cause of battlefield mortality. HemCon Bandages (HemCon Medical Technologies, Portland, USA) have saved many lives of US soldiers by stopping major bleedings on the battlefield. HemCon Bandages become extremely sticky when in contact with blood, thereby sealing the wound, controlling bleeding. Furthermore, HemCon contains chitosan, a bio-compatible polysaccharide, stimulating hemostasis. The purpose of this trial was to observe whether HemCon can prevent arterial bleeding in patients after transradial coronary angiography, including patients on double and triple antiplatelet therapy.

## Methods

After puncture of the radial artery, a 5F sheath was inserted. A cocktail containing nitrogen, verapamil and 5000 IU of heparin was given intraarterially. Coronary angiography was performed with 5F catheters. Thereafter, the sheath was removed and a HemCon Bandage was applied on top of the puncture site. Manual compression was performed for a duration of two minutes and, if necessary, another minute of manual compression was applied. Finally, a pressure tape was tightly wrapped around the HemCon Bandage and wrist. Both the bandage and tape were removed after four hours. Free movement of the arm and fingers, while keeping the wrist straight, was allowed during this time. Patients were followed-up for bleeding complications up to one month after the procedure.

## Results

Of the first 79 patients 56% were male. Average age was 62 (range 38-87) years. Patients received, on top of the 5000 IU procedural heparin, either no (9%), single (44%), double (13%) or triple (34%) antiplatelet therapy. In two (3%) patients a minor arterial bleed occurred at the angiroom due to insufficient pressure by the pressure tape. Hemostasis was reached in these patients by reapplying a new pressure tape tighter around the HemCon Bandage and wrist. Until discharge, three (4%) patients had minimal oozing at the puncture site and one patient (1%), on triple antiplatelet therapy, suffered from severe oozing at the puncture site, requiring a new pressure tape. No major arterial bleedings occurred at the angiroom and during one month follow-up.

## Conclusion

HemCon Bandages prevent arterial bleeding after transradial coronary angiography, even in patients with double and triple antiplatelet therapy.

June 2008

HemCon® Bandage 2 in x 2 in.



**5F Sheath** is removed from radial artery.



**Manual Compression** with HemCon Bandage is applied for two minutes after sheath removal.



**Hemostasis** from puncture site is achieved.



**Pressure tape** is tightly wrapped around the HemCon Bandage and wrist for four hours.