Pneumatic Compression for Brachial Access Hemostasis

Dr. Rajiv Parakh
Chairman
Division of Peripheral Vascular & Endovascular Sciences
Medanta – The Medicity, Hospital
Delhi / NCR, India

None Pertaining to this talk

Absolute Indications
* Bilateral Femoral occlusions
* Previous femoral surgery or groin infection

Adjunctive Indications
* Facilitates cannulation of Mesenteric, Renal Vessels
* Easy to Locate / Ultrasound for guided punctures
* Easy to compress if bleeding occurs

Challenges
• Manual compression gold standard for hemostasis
• Difficulty in maintaining focal compression on the artery by a hand grip
• Tendency to roll from beneath the interventionist’s fingers during holding pressure
• Delayed development of hematoma or pseudoaneurysm is common
• Closure device not recommended

Technique
• US Guided Arterial Puncture 1.5-2cm Distal to Skin Puncture
  • Post Procedure:
    - Arm straight
    - Sphygmomanometer Cuff wrapped 2.5cm above puncture site
    - Sheath removed as cuff inflated to keep pressure around 20-40 mm Hg above systolic BP (120-140 mm Hg)
    - Light Compression at Skin Puncture Site
### Technique

- Alternate inflation for 10 mins, deflation for 2 mins
- Duration: depending on anticoagulation (average 1-1.5 hours)
- Check doppler after removal of cuff .... for confirmation hemostasis, hematoma, pseudoaneurysm @2hrs, 4hrs

### Our Experience (2013-2015)

<table>
<thead>
<tr>
<th>Patients: 70</th>
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<tbody>
<tr>
<td>Hematoma - 2</td>
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<tr>
<td>Pseudoaneurysm - 1</td>
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<td>Thrombosis – 1 (Needed Exploration)</td>
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**Managed Conservatively**

<table>
<thead>
<tr>
<th>Intra-Luminal + Cuff Hemostasis for Double Access Sites</th>
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<tr>
<td><strong>Right Iliac CTO Recanalisation</strong></td>
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<tr>
<td>Antegrade + Retrograde approach</td>
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<tr>
<td>(Right Femoral + Left Brachial Percutaneous Access)</td>
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<th>Post PTAS</th>
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<td>Pass Balloon on Wire Besides Sheath</td>
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| Slow Inflation of Balloon with Simultaneous Sheath Withdrawal |

| Removal of Sheath + Complete Balloon Inflation |
After Removal of Sheath, Balloon kept Inflated for 10 - 15mins

- Groin Balloon Deflated
- Balloon Removed and Brachial cuff Compression Instituted
- Light compression at groin

Advantages

- Early Ambulation
- Decreased Post-Procedure Nursing
- Reduced Hospital Cost and Length of Stay
- Patient Comfort

Conclusion

- Safe, Easy and Inexpensive
- Reduced Complications
- Adequate Heparinisation
- Strict vigilance 6 – 8 hours
- Learning curve – Recognise Early Hematoma
- Early Mobilisation

THANK YOU

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