New Switch Back Technique from the One Puncture Site of Femoral Artery

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Disclosure

Speaker name: Kazuki Tobita

I have the following potential conflicts of interest to report:

☐ Consulting
☐ Employment in industry
☐ Stockholder of a healthcare company
☐ Owner of a healthcare company
☐ Other(s)

☑️ I do not have any potential conflict of interest
• If we select trans-femoral endovascular therapy (EVT) for infrainguinal sites, we have to choose ipsilateral or contralateral punctures.

• We sometimes have cases that the EVT is necessary for bilateral foot. In such cases, a switch back technique from femoral artery is useful.

• However, conventional methods have risks that guide wire (G.W) could not invert or guiding sheath (G.S) got out from vessel.
Objective

➢ To demonstrate the new switch back technique from femoral artery during trans-femoral EVT in which we will treat bilateral foot.
Step 0. Preparation

1. G.S (aNormal sheath should be avoided)
2. Two 0.014 inch G.Ws
3. 0.035 inch Radifocus wire
4. Puncture needle (18 G is desirable)
Step 1. Vertical puncture
Step 2. Insertion of 0.014 inch G.W
Step 3. Insertion of Radifocus wire
Step 4. Insertion of G.S
Step 5. EVT for ipsilateral site
Step 6. Exchange of wire
Step 7. Re-insertion of G.S
Step 8. EVT for contralateral site
Technical summary

1. Insertion of two 0.014 inch G.Ws via 18 G needle outer tube.

2. Exchange of one G.W to 0.035 inch Radifocus wire with outer tube.

3. Insertion of guiding sheath.

4. Another 0.014 inch G.W is left during one side’s EVT.

5. Re-insertion of guiding sheath with left G.W
## Result

<table>
<thead>
<tr>
<th>Success rate &amp; Complication</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Success rate</td>
<td>13 (92.8)</td>
</tr>
<tr>
<td>Pseudo-aneurysm (acute phase)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Pseudo-aneurysm (late phase)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Hematoma</td>
<td>1 (7.1%)</td>
</tr>
<tr>
<td>G.W kink</td>
<td>0 (0)</td>
</tr>
<tr>
<td>G.S kink</td>
<td>0 (0)</td>
</tr>
</tbody>
</table>
Conclusion

- A new switch back technique was easy and secure for even hemodialysis patients. In addition, this technique was employed by commonly used devices only.

- A complication is one hematoma only, so this technique maybe safe too.

- However, we don’t have severe calcification case of puncture site, this technique may have to be avoided.

- Hemostasis devices was not used for present cases. So whether these ones are safe or not expect for future.
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