Radial Access in STEMI Patients—Is it taking too long? A comparison of Radial against Femoral access for Door to Lidocaine, Lidocaine to Sheath, and Sheath to Vascularization times in STEMI Patients

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Abstract

Background

Utilizing radial access in primary PCI (PPCI) has been shown to decrease bleeding risk, mortality, and mortality in comparison to femoral access (1,4). However, some studies suggest that radial access has a steep learning curve and slower revascularization times (5,6). We aim to understand how switching to radial access has affected our cathlab procedure times.

We reviewed data from both the ACTION Registry(5), GWTG(5) and CathPCI Registry(5). The cohort consisted of all (N=127) consecutive STEMI patients from 2014 through 2015, who underwent cardiac catheterization at UUMC presenting through either emergency services, private vehicle, or transferred from an outside hospital for primary PCI. We divided the cohort into a femoral and radial group and compared means and standard deviations within three subcategories: door to lidocaine, lidocaine to sheath, and sheath to revascularization, were similar between radial and femoral access.

Results

The mean door to lidocaine time for femoral access was 14 min±6 min, and radial access was 10 min±6 min (Figure 1).

The mean lidocaine to sheath time for femoral access was 2 min±2 min, and radial access was 1 min±1 min (Figure 2).

Lastly, mean sheath to revascularization or visualization for femoral access was 21 min±10 min, and radial access was 19 min±12 min (Figure 3).

Conclusions

Our cath lab times; door to lidocaine, lidocaine to sheath, and sheath to revascularization, were similar between radial and femoral access.

Figures

Table 1. Physician cathlab times and demographics for PPCI in STEMI patients. All physicians in this metric routinely use radial access and have completed a minimum of 50 LHC radial access cases (1).

<table>
<thead>
<tr>
<th>Access Site</th>
<th>Door to Lidocaine</th>
<th>Lidocaine to Sheath</th>
<th>Sheath to Revascularization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Femoral</td>
<td>14 min±6 min</td>
<td>2 min±2 min</td>
<td>21 min±10 min</td>
</tr>
<tr>
<td>Radial</td>
<td>10 min±6 min</td>
<td>1 min±1 min</td>
<td>19 min±12 min</td>
</tr>
</tbody>
</table>

Acknowledgements

For Further information