BRACHIOBASILIC AV FISTULA ELEVATION AND TRANSPOSITION WITHOUT REANASTOMOSIS - Preliminary Results

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Background: When the venous territory is poor the brachiobasilic arteriovenous fistulae (BBAVF) could be the only option for a native vascular access. Different techniques have been proposed. Our aim is to evaluate the efficiency of the brachiobasilic AV fistula with two stage elevation and transposition without reanastomosis.

Methods: Observational, descriptive and prospective study. Patients submitted to BBAVF elevation and transposition during 2012 and 2013 were included. A two stage procedure was done. The basilic vein was isolated, a subcutaneous flap was done and then vein was transposed without being transected. The subcutaneous flap is then sutured in between the transposed vein in the anterior surface of the arm and the nerve. Length of superficialized segment, distance from the skin, arterial flow, sistolic velocity, resistance index and vein diameter was measured by color doppler ultrasound.

<table>
<thead>
<tr>
<th>Age</th>
<th>65.59 ± 12.96</th>
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<tbody>
<tr>
<td>Gender</td>
<td>12 Male; 10 Female</td>
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<tr>
<td>CKD Stage</td>
<td>18- Pre-Dialysis</td>
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<tr>
<td>Time Between Stages</td>
<td>43 ± 13</td>
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<tr>
<td>Legth of superficialized vein</td>
<td>89 ± 2,1 mm</td>
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<tr>
<td>Distance from skin</td>
<td>3,82 ± 2,3 mm</td>
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<tr>
<td>Arterial Flow</td>
<td>1401±570 L/min</td>
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<tr>
<td>Vein Diameter</td>
<td>9.96 ± 5.1mm</td>
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<tr>
<td>Surgical Complications</td>
<td>2 Heamatoma; 1 Surgical Site Infection</td>
</tr>
<tr>
<td>Mean Follow Up</td>
<td>12,74 Months</td>
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<tr>
<td>Functional BBAVF</td>
<td>12</td>
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</tbody>
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Figure 1 – Elevation and transposition of BBAVF without reanastomosis.

Figure 2 – 3 month follow up a) surgical wound, b) length and distance to skin, c) vein diameter, d) arterial flow; e) vein flow

CONCLUSIONS: This technique is safe, simple, efficient and allows for early use of the access, as 20 of our accesses were functional as an AV access for HD at 2th week postoperative. Although our follow-up is short, we are excited with these preliminary results and we hope to compare this technique with others in the long term.