Dear Editor,

We read with great interest a recent article by Tütün et al. in which they analyzed composite grafting in cases of insufficient length of internal thoracic artery (ITA) (1). The authors presented their experience with ITA and saphenous vein composite grafts used in 8 patients because of insufficient length, inadequate flow and inadequate diameter of the distal third of ITA. The authors should be congratulated for overcoming such a difficult problem during the operation with such a simple solution.

In their article we could not read an explanation about the lengths of the ITA’s used and lengths of the saphenous veins those are interposed between free end of ITA and LAD. Improved patency rates and long-term survival of ITA when compared with saphenous vein grafts have made ITA to be the best choice of conduit for coronary artery bypass grafting (CABG). These lead many surgeons to more frequent use of arterial grafts and sequential arterial anastomoses. Increase in usage of ITA bring out some problems; such as perioperative arterial spasm, insufficient flow and length. To overcome such problems besides pedicled harvesting technique of the ITA, skeletonization is described by Keeley, which improves length and blood flow of the conduit and allows easier construction of sequential anastomoses (2). There are various clinical studies supporting these findings (Table 1). We wonder if skeletonization of the ITA was used by the authors to improve length and flow of the ITA’s.

After skeletonization if there is still insufficient length or flow in the ITA graft than, saphenous vein interposition can be used to overcome such a difficult problem for the no-touch aorta technique.

As a conclusion, we propose that with these reported amounts of increase in flow and length of ITA, skeletonization of ITA might be another alternative for more comfortable use of ITA in patients with insufficient length and flow.

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References

Table 1. Flow and length measurements of skeletonized ITA from different articles

<table>
<thead>
<tr>
<th>Study</th>
<th>Parameters</th>
<th>Pedicled ITA</th>
<th>Skeletonized ITA</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turk (3)</td>
<td>Length, cm</td>
<td>16.8±0.7</td>
<td>18.9±0.5</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>Flow, ml/min</td>
<td>59.4±5.4</td>
<td>96.3±5.3</td>
<td>&lt;0.001</td>
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<tr>
<td>Calafiore (4)</td>
<td>Length, cm</td>
<td>16.4±1.7</td>
<td>20.1±1.6</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Wendler (5)</td>
<td>Flow, ml/min</td>
<td>147.1±70.5</td>
<td>197.2±66.6</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>Deja (6)</td>
<td>Length, cm</td>
<td>17.8±1.14</td>
<td>20.3±0.52</td>
<td>0.11</td>
</tr>
<tr>
<td></td>
<td>Flow, ml/min</td>
<td>66.3±7.42</td>
<td>100.3±14.84</td>
<td>&lt;0.05</td>
</tr>
</tbody>
</table>

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Author’s reply

Dear Editor,

We would like to thank the author of the letter for his kind contribution to our paper.

In our small patient’s population, we interposed saphenous vein to internal thoracic artery (ITA) graft, only in cases where middle part of the ITA was severely injured during harvesting and skeletonization only would not suffice. After taking down the ITA we carefully examine the ITA’s, and if any haemorrhage is observed, we cut it from this level. If the intimal part of the ITA is intact, it is used. However if we observed any reduction in the flow, we used vasodilator agents, or skeletonized the ITA for a better inspection which we do not use frequently. We believe that if there is any reduction in ITA blood flow especially in the middle part, possible injury should be considered.

Internal thoracic artery - saphenous vein composite graft can be useful if ascending aorta is severely calcified, and we agree with the authors; skeletonization increases the length and flow of the ITA.

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