**COMPLEX (TCTAP A-049 TO TCTAP A-050)**

**TCTAP A-049**  
Novel Management of Acute Stent Thrombosis During Procedure by Using Ryusei Perfusion Balloon  
Masaaki Okutsu  
1Nozaki Tokushukai Hospital, Japan

**BACKGROUND** Acute stent thrombosis (AST) just after stent implantation is tend to be intractable complication in percutaneous coronary intervention (PCI). Conventional balloon dilatation, aspiration IABP, one more stent implantation inside stent, thrombolysis (UK or t-PA) etc. are commonly used procedure, but there is often need much time to stop growing thrombus. Perfusion balloon (PB) can be dilated for long time without severe ischemia. PB can isolate thrombus from blood and it has possibilities of thrombus stabilization. We used Ryusei PB with long inflation in 6 AST cases, and compared PB to conventional procedure without PB.

**METHODS** We had 22 definite AST cases (AMI:12, Recent MI:2, UAP:3, stable CAD:5) between May 2006 and September 2014. First 16 cases were treated by conventional procedure without PB (Conventional group) and last 6 cases by novel procedure with PB (PB group).

**RESULTS** 2 cases in Conventional group did not achieve thrombus stabilization and CABG was performed and all cases achieved thrombus stabilization in PB group. IABP was used in all cases of Conventional group and 2 cases in PB group. One of this 2 cases of PB group had AST in LMT, and another case had heart failure then IABP was used before PCI. Average total balloon inflation numbers after AST was 10.6 times in Conventional group and 7.3 times in PB group, total balloon inflation time after AST was 389 min and 1027 min, used contrast volume was 315 ml and 248ml, procedure time after AST onset was 137 min and 80min, respectively.

**CONCLUSION** PB group had high rate of successful thrombus stabilization, low rate of IABP use, and few balloon inflation, long inflation time, low contrast volume use, short procedure time. This study has small case number and cannot show statistically deference, but PB has potential to be a solution of intractable AST.

**TCTAP A-050**  
Intended Versus Ad Hock Use of Mother-Child Guiding Catheter Extension System in Difficult Coronary Anatomy Can Reduce Some Important Procedural Variables  
Farhat Fouadavand  
1Holy Family Hospital (Ospedale Sacra Famiglia), Italy

**BACKGROUND** In some cases the angioplasty can experience difficulties due to vessel anatomy; lesion characteristics or both that can obstruct stent or other device delivery (Fig. 1 Demonstration of difficulties in passing with IVUS). This can lead to excessive usage of contrast, higher cost of the procedure, elevated radiation and procedure time or to impossibility to deliver the device and thus compromising the procedure. We describe our experience from June 2011 to May 2014 in 27 patients were due to impossibility to delivered the stent we used either GuideLiner catheter (VascularSolutions, Inc., Minneapolis, Minnesota) or GuideZila (Boston Scientific) as a guiding catheter extension system (GCES) with success. Both catheters are a coaxial guiding catheter extensions, delivered through a standard guiding catheter on a monorail basis.

**METHODS** The main difficulties we encountered in performing the procedure were due to proximal to the lesion tortuosity, severely calcified lesion, previous stent or combination of them. In 11 patients we used the GCES after failure of the traditional technics - ad hock group (Group A) Fig. 2. The second group consist of 16 patients were we decided to use GCES electively just from the beginning of the intervention or immediately after encountering the first difficulties in passing the lesion - planned group (Group B) Fig. 3. In the presented work we took in consideration the differences in the radiation time, amount of contrast and cost of the procedure between the two groups.
RESULTS

<table>
<thead>
<tr>
<th>Group</th>
<th>Contrast (ml)</th>
<th>Time (min)</th>
<th>Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>323</td>
<td>40</td>
<td>1484</td>
</tr>
<tr>
<td>B</td>
<td>155</td>
<td>27</td>
<td>895</td>
</tr>
<tr>
<td>Δ A/B</td>
<td>168</td>
<td>13</td>
<td>589</td>
</tr>
</tbody>
</table>

In all patients we were able to finalize the procedure with implanting the stents (Fig. 4: Implanting DES with use of GCES - Group A; Fig. 5: Implanting DES with use of GCES - Group B) and to end-up with success in all cases. Planned use of GCES (group B) led to reduction in all of the variables in respect of group A. Radiation time was 12.9 min less, contrast use was 168.0 ml less and the cost of the procedure was $89.5 less for the group B.

CONCLUSION The use of guiding catheter extension systems, in our case either GuideLiner or GuideZila was easy, safe, providing to extremely good support and coaxial guide engagement and linear device delivery. These characteristics permit us to achieve good final result in all patients (Fig 6 Final result Group A; Fig 7 Final result Group B). In our experience their elective use reduce the procedure time, cost, contrast usage and radiation time.