A Real CHIP Challenge

Complex High-Risk and Indicated Patient

Tarek Abdel-Hameed Kafafy, MD, PhD, FESC
Interventional Cardiologist
Lecturer of Cardiovascular Medicine
Assiut University Heart Center
Patient data:

- Female, 58 years old.
- Not known to be diabetic, hypertensive nor ischemic before.
- No relevant FH.
- Asthmatic.
- C/O TCP 4 hrs. duration.
- Killip IV, Cardiogenic shock → BP 85/50 mmHg.

Baseline ECG
What would be the Plan??

MACCE by SYNTAX Score 23-32

The cumulative MACCE rate is displayed for the SYNTAX Trial group this score corresponds to.
SYNTAX Score II

Decision making - between CABG and PCI - guided by the SYNTAX Score II to be endorsed by the Heart Team.

PCI
SYNTAX Score II: 33.4
PCI 4 Year Mortality: 9.0 %

CABG
SYNTAX Score II: 19.0
CABG 4 Year Mortality: 2.8 %

Treatment recommendation: CABG

Recommendations for LM Revascularization

United States

Europe

Low
PCI: IIB
CABG: IB

Intermediate
PCI: IIbB
CABG: IB

High
PCI: IIIB
CABG: IB
Primary Endpoint
Death, Stroke or MI at 3 Years

![Graph showing the comparison between CABG and PCI in terms of mortality over 3 years.]

<table>
<thead>
<tr>
<th>Months</th>
<th>PCI</th>
<th>CABG</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>948</td>
<td>957</td>
</tr>
<tr>
<td>1</td>
<td>896</td>
<td>868</td>
</tr>
<tr>
<td>6</td>
<td>875</td>
<td>836</td>
</tr>
<tr>
<td>12</td>
<td>850</td>
<td>817</td>
</tr>
<tr>
<td>24</td>
<td>784</td>
<td>763</td>
</tr>
<tr>
<td>36</td>
<td>445</td>
<td>458</td>
</tr>
</tbody>
</table>

No. at Risk:
PCI 948 957 948 948 875 875 875 875 784 784 784 784 686 686 686 686 445 445 445 445
CABG 957 868 836 817 763 763 763 763 458 458 458 458

HR [95% CI] = 1.00 [95% CI: 0.79, 1.26]
P = 0.98

Clinical Outcomes at 36 Months

![Bar chart showing the proportion of patients with various outcomes for PCI and CABG.]

- **Primary Endpoint**: 15.2% (PCI), 14.7% (CABG), P = 0.90
- **All-Cause Mortality**: 8.0% (PCI), 5.8% (CABG), P = 0.08
- **Stroke**: 2.3% (PCI), 3.1% (CABG), P = 0.30
- **Myocardial Infarction**: 8.0% (PCI), 8.4% (CABG), P = 0.69
- **Repeat Revasc.**: 12.5% (PCI), 7.4% (CABG), P < 0.01
Randomized Trial of Stents versus Bypass Surgery for Left Main Coronary Artery Disease:

Five-Year Outcomes of the PRECOMBAT Study

Jung-Min Ahn, MD.
On behalf of the PRECOMBAT Investigators

Professor of Medicine, University of Ulsan College of Medicine, Heart Institute, Asan Medical Center, Seoul, Korea
Primary End Point of MACCE

Cumulative Incidence, %

- PCI
- CABG

p=0.26

Patient at risk
PCI 300 272 261 252 246 231
CABG 300 279 274 267 256 235

Stenting Strategy

<table>
<thead>
<tr>
<th>Favouring provisional</th>
<th>Favouring two stents</th>
</tr>
</thead>
<tbody>
<tr>
<td>No SB lesion</td>
<td>1,1,1 medina</td>
</tr>
<tr>
<td>SB diameter &lt; 2.0 mm</td>
<td>SB diameter &gt; 2.0mm</td>
</tr>
<tr>
<td>SB lesion length &lt; 5.0mm</td>
<td>SB lesion length &gt; 5.0mm</td>
</tr>
<tr>
<td>Easy SB access</td>
<td>Difficult SB access</td>
</tr>
<tr>
<td>SB supplying a small burden of the myocardium</td>
<td>SB supplying a large burden of the myocardium</td>
</tr>
</tbody>
</table>
Step-Crush technique

- 1 to 2 mm of SB stent positioned in MV (proximal SB stent marker on MB wire or SB just covers proximal edge of ostium)
  - The SB stent is deployed and stent balloon withdrawn slightly with high RBP inflation (flares proximal stent) then angiogram to make sure no distal dissection
  - The SB is crushed by an MV balloon then rewire and kiss (extra kiss)

The Basic CHIP Premise

- There is a large underserved patient population that can benefit from revascularization
  - Rather than focusing on low-risk patients who may be “easy to treat”, we need to focus upon higher-risk patients who have the most to gain
  - These patients will be more commonly seen as our field / the healthcare system evolves
  - The development of comprehensive specialists trained with advanced technical and cognitive skills to assess and treat these patients is clearly needed
Thank you