ABORTED AND ABANDONED PRIMARY PCI
S. Venkatesan, G. Gnanavelu, Geetha Subramanian
Madras Medical College, Chennai, India
Primary PCI is the *standard of care* for acute STEMI in all eligible patients.

Only a *fraction of STEMI* patients receive this.

Success rate of P-PCI ranges between 80-90%
STEMI is the ultimate cardiac emergency

Time is muscle . . .

Who does the earliest intervention?

Intrinsic fibrinolytic activity gets activated and begins to take on the thrombus head on.

*This is the earliest intervention* in STEMI by natural forces with zero time window.
The enigma of spontaneous thrombolysis!

The power of this natural lytic process has never been easy to predict and quantitate.

The exact incidence is not known.

In this era of primary PCI we have found a new opportunity to scrutinize this concept.
The MONAMI study threw light on incidence of spontaneous thrombolysis: Nearly 20%
<table>
<thead>
<tr>
<th></th>
<th>Group A (n = 22)</th>
<th>Group B (n = 43)</th>
<th>Group C (n = 27)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of diseased vessels</td>
<td>2 (1–3)</td>
<td>1 (1–3)</td>
<td>2 (1–3)</td>
<td>0.93</td>
</tr>
<tr>
<td>IRA findings at first contrast injection</td>
<td></td>
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<tr>
<td>TIMI flow grade 3</td>
<td>13/22 (59%)</td>
<td>6/43 (14%)</td>
<td>2/27 (7%)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Instantly visible collaterals*</td>
<td>7/21 (33%)</td>
<td>18/43 (42%)</td>
<td>14/26 (54%)</td>
<td>0.36</td>
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<td>IRA findings during the procedure</td>
<td></td>
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<tr>
<td>Thrombus length ≥5 mm</td>
<td>10/22 (46%)</td>
<td>24/43 (56%)</td>
<td>15/27 (56%)</td>
<td>0.70</td>
</tr>
<tr>
<td>Plaque length ≥5 mm</td>
<td>16/22 (73%)</td>
<td>38/43 (88%)</td>
<td>23/27 (85%)</td>
<td>0.26</td>
</tr>
<tr>
<td>Plaque calcification</td>
<td>10/22 (46%)</td>
<td>14/43 (33%)</td>
<td>9/27 (33%)</td>
<td>0.56</td>
</tr>
<tr>
<td>TIMI flow reduction during coronary intervention</td>
<td>3/22 (14%)</td>
<td>5/43 (12%)</td>
<td>5/27 (19%)</td>
<td>0.72</td>
</tr>
<tr>
<td>Distal embolization</td>
<td>1/22 (5%)</td>
<td>6/43 (14%)</td>
<td>4/25 (16%)</td>
<td>0.44</td>
</tr>
<tr>
<td>IRA findings according to final contrast injection</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TIMI flow grade 3</td>
<td>21/22 (96%)</td>
<td>31/43 (72%)</td>
<td>21/27 (78%)</td>
<td>0.09</td>
</tr>
<tr>
<td>Corrected TIMI frame count</td>
<td>21 (19–28)</td>
<td>29 (24–43)</td>
<td>37 (22–52)</td>
<td>0.007</td>
</tr>
<tr>
<td>Myocardial blush grade 3</td>
<td>15/20 (75%)</td>
<td>24/39 (62%)</td>
<td>12/24 (50%)</td>
<td>0.24</td>
</tr>
</tbody>
</table>

Dichotomous data presented as number/valid cases (%) and continuous data as median values (25–75th percentiles).

*aRentrop grade 1, 2, or 3 collaterals from contralateral or ipsilateral vessels towards IRA.
The aim of this study/presentation is to share our experiences that could occur when we plan for primary PCI.

- Related to spontaneous thrombolysis
- Related to complex coronary anatomy
Situation: One

A totally patent IRA or

A minimal & insignificant lesion or luminal irregularity.

The decision to proceed further is decided on table.

This can lead to classical aborted PCI.

Most commonly observed in young men/smokers.

Pure thrombotic STEMI / minimal or No atherosclerosis
Situation : Two

Fully thrombus loaded lesion

Opens up once guide wire is crossed
Situation: Three

- Complex vessel anatomy
- Difficulty in identifying IRA
Surprises during primary angioplasty
Situation Four: Diagnostic errors

Totally normal coronary angiogram

The ECG is mistakenly indentified as STEMI (ERS / Non cardiac ST elevation etc)
Implication of aborted and abandoned Primary PCI

- Patient
- Cardiologist
- Cath lab staff
- CABG stand by team
- Corporate desk
Deploying a stent inside IRA is not our aim in STEMI, but to salvage myocardium.

If that has happened even before the patient enters cathlab. Leave the patient alone. 

Temptation to put a stent on a fully recannalised IRA with a luminal irregularity to be resisted.

This is akin to doing a PCI in 10-20% lesion.

There is no published data to answer this issue.
Rescue thrombolysis in the Era of PCI

PCI coming to the rescue of thrombolysis is well known
Can thrombolysis be a back up option to primary PCI?
When we have a complex anatomy on hand
When IRA is not obvious
When CABG is not ready

A simple fall back thrombolysis may be the best option.
Conclusion
Expect for surprises in cath lab during primary PCI!
PCI SCHEDULED 08.00 PM

PCI DELAYED

PCI ABANDONED

PCI ABORTED
In the management of STEMI

Primary PCI once contemplated need not always reach it’s *logical conclusion*.

It can get aborted or abandoned at various levels for various reasons.

In many it is therapeutically and financially *rewarding concept* for the patient and physician.
Thank you