PCI in STEMI: Prognostic Impact of Nonculprit Lesions PCI During Primary PCI

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Background: Percutaneous coronary intervention (PCI) of the culprit vessel is the conventional treatment in STEMI. However, pts often have significant coronary lesions in other vessels. In patients with STEMI and multivessel disease, it is unknown whether it is safe or even desirable to also treat the nonculprit vessel during primary PCI procedure.

Aim: This study aimed to test the safety of of the culprit and nonculprit lesions PCI with PCI of only the culprit lesion in STEMI during primary PCI.

Method and Results: We used our Database of all pts treated using primary PCI for STEMI. Excluded pts were those with cardiogenic shock and one vessel disease. Patients were allocated into 2 groups: culprit vessel PCI and nonculprit PCI. Of note, 'one time' multivessel PCI was used in only 6.4% of our STEMI patients.

| | Culprit PCI [N=928] | Nonculprit PCI [N=64] | Р |
|------------------|---------------------|-----------------------|-------|
| Age | 63±12 | 63±14 | 0.8 |
| Anterior AMI | 40% | 59% | 0.01 |
| Contrast (ml) | 174±68 | 279±59 | 0.003 |
| One year | | | |
| Death | 6.5% | 16% | 0.003 |
| Re-MI | 5.5% | 1.6% | 0.2 |
| Stent thrombosis | 2.5% | 0% | 0.2 |
| TVR | 13.6% | 6.3% | 0.09 |
| MACE | 22% | 22% | 0.99 |

Conclusion: Nonculprit PCI strategy is not advisable in non-shock patients with multivessel coronary diseas in patients with STEMI undergoing primary PCI.