0.082

63.2 ± 37.0, n = 25

26.3 ± 17.8, n = 19

5 (3.70%)

NS

1.63%

27.8 ± 16.9

0

63.2 ± 37.0, n = 25

27.4 ± 35.8, n = 19

NS

1.63%

Occluded

shown in figure) and tended to be higher at 6 hours (r = 0.32, p = 0.058). The

higher 24 hour myoglobin levels (r = 0.65, p = 0.0001, n = 35) (24 hour data

described index of coronary blood flow. Slower 90 min. flow (i.e. higher

This study examined the relationship between the release of myoglobin and

blood flow in patent culprit arteries at 90 min. following thrombolysis with TNK

in TIMI 10A. The frames required for dye to reach standard landmarks were

counted at the Corrected TIMI Frame Count (CTFC), a previously
described index of coronary blood flow. Slower 90 min. flow (i.e. higher

CTFCs) was correlated with greater improvements in CTFC (r = 0.87, p = 0.0001).

Conclusions: Slower flow in patent culprit arteries at 90 min. following

thrombolysis is associated with a persistent elevation of myoglobin at 12 and

24 hrs which approximates that observed in occluded arteries, possibly as a result of delayed washout.

946-20

Clinical Usefulness of Dual SPECT Imaging of

To-99m Sestamibi and 123I-IPPA for Predicting

Myocardial Viability After Thrombolysed

Myocardial Infarction

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There is controversy on the value of To-99m Sestamibi SPECT (MIBI) for
detection of myocardial viability. This study was performed to investigate the
ability of MIBI in conjunction with 123I-Phenylpentadecanoic acid (IPPA) in
identifying dysfunctional but viable myocardium after early (<4 hours)
 thrombolytic treatment for myocardial infarction (MI). We compared, in cor­
responding myocardial segments, perfusion and metabolic patterns in 22
patients with first uncomplicated MI (65.5 ± 65.5, n = 26, p = 0.001).

1. The left ventricle was divided into 9 segments (apex, 4 distal and 4 basal seg­
mens) and analyzed using a quantitative uptake score as normal = 1, mild
reduction = 2, severe reduction = 3, defect = 4. To assess functional recovery
of asynergic areas, all patients underwent 2D echocardiography evaluating
wall motion score index (WMSI) and ejection fraction (EF) on the same day
of radionuclide Imaging and 6 weeks after; improvement was defined as
decrease of WMSI > 1. WMSI at baseline well correlated with IPPA score (r
= 0.66, p < 0.0001, n = 34), and with CTFC (r = 0.76, p < 0.001, n = 19).

2. From the indicator dilution theory follows, however, that appearance time has
a limited value in the quantitation of myocardial blood flow restoration in
stable coronary patients. TFC, therefore, is probably of limited value in the quantitation of myocardial blood flow restoration in
acute myocardial infarction.

946-21

Persistent Myoglobin Elevation is Associated with Slow Flow in Patent Culprit Arteries Following Successful Thrombolysis

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This study examined the relationship between the release of myoglobin and
blood flow in patent culprit arteries at 50 min. following thrombolysis with TNK
in TIMI 10A. The frames required for dye to reach standard landmarks were
counted to arrive at the Corrected TIMI Frame Count (CTFC), a previously
described index of coronary blood flow. Slower 50 min. flow (i.e. higher
CTFCs) was correlated with higher 12 hour (r = 0.66, p = 0.0001, n = 34), &
higher 24 hour myoglobin levels (r = 0.65, p = 0.0001, n = 35) (24 hour data
shown in figure) and tended to be higher at 6 hours (r = 0.32, p = 0.058). The
24 hr. mean myoglobin of pts. with slow flow (CTFC ≥ 40) (116.5 ± 65.5, n
= 9) did not differ from that of pts. with a closed artery (137.8 ± 156.8, n = 5,
p = NS) but was higher than pts. with more rapid 90 min. flow (CTFC < 40)
(55.5 ± 4.7, n = 26, p = 0.001).

Conclusions: Slower flow in patent culprit arteries at 90 min. following
thrombolysis is associated with a persistent elevation of myoglobin at 12 and
24 hrs which approximates that observed in occluded arteries, possibly as a result of delayed washout.

946-22

Does TIMI Frame Count Reflect Myocardial Blood Flow?

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TIMI frame count (TFC), presented as a simple, reproducible quantitative
index of coronary blood flow, is the number of frames needed for the appear­
ance of the front of the contrast bolus to reach predefined distal landmarks.
From the indicator dilution theory follows, however, that appearance time has
only a weak relation with flow. Mean transit time (MTT), on the other hand,
is fundamentally related to myocardial flow. The MTT-method has been suc­
cessfully tested against direct flow measurements in dogs. Therefore, we con­sidered a comparison between the simply applicable TFC and laborious MTT
useful.

We studied 108 coronary arteriograms of stable patients, previously in­
cluded into cholesterol lowering trials, from whom the MTT's were already
assessed. TFC was determined by 2 independent angiographers, blinded to the MTT data. If this resulted in a difference of > 5 frames, consensus
was reached with a third observer. MTT, from injection site to a myocar­
dial area of interest, was assessed by digital subtraction angiography with
videodensitometric analyses of the time course of the contrast.

Linear regression analysis between TFC (frames) and MTT (sec) on all arter­al and on LAD, LCX and RCA territories separately showed correlation
coefficients of 0.12, 0.20, 0.26 and 0.31, respectively. These poor results did not change substantially by excluding those observations, in which there was a difference of > 5 frames between observers (about 20% of all cases).

Conclusion: As expected, TFC does not seem to reflect myocardial flow,
as measured by MTT, in stable coronary patients. TFC, therefore, is probably
of limited value in the quantitation of myocardial blood flow restoration in
acute myocardial infarction.

946-23

Transluminal Extraction Atherectomy vs. Balloon
angioplasty in Acute Ischemic Syndromes (TOPIT):
Hospital outcome and six-month status

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The TOPIT Trial Is a randomized, multicenter study comparing the use of
transluminal extraction atherectomy (TEC) versus balloon angioplasty
(PTCA) in native vessels for clinical situations which are associated with
intra coronary thrombus. We hypothesize that pretreatment with TEC enhances
outcome during percutaneous revascularization for high risk patients with
acute ischemic syndromes. 115 patients (mean age 60.0) were randomized to
TEC while 135 patients (mean age 58.7 year) to PTCA. Clinical Indica­tions
included primary reperfusion for acute myocardial infarction (31.61%),
unstable angina (30.8%), post-infarction angina (24.3%), and thrombolytic
failure (10%).

Outcomes were:

<table>
<thead>
<tr>
<th>TEC 115</th>
<th>PTCA 135</th>
<th>p value</th>
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<tbody>
<tr>
<td>Death in hospital</td>
<td>1 (0.87%)</td>
<td>0</td>
</tr>
<tr>
<td>Emergent CABG</td>
<td>1 (0.87%)</td>
<td>1 (0.87%)</td>
</tr>
<tr>
<td>Emergent PTCA</td>
<td>5 (4.35%)</td>
<td>5 (4.70%)</td>
</tr>
<tr>
<td>Initial % stenosis</td>
<td>75.2 ± 16.7</td>
<td>78.6 ± 17.5</td>
</tr>
<tr>
<td>Final % stenosis</td>
<td>28.2 ± 18.4</td>
<td>27.8 ± 16.9</td>
</tr>
<tr>
<td>Final % thrombosis</td>
<td>8%</td>
<td>9%</td>
</tr>
<tr>
<td>9x increase CPK</td>
<td>5.63%</td>
<td>5.63%</td>
</tr>
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