A Treatment Algorithm for Acute Mesenteric Ischemia

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Disclosure

Speaker name:
Olaf J. Bakker

X  I do not have any potential conflict of interest
Acute Mesenteric Ischemia; incidence
Acute Mesenteric Ischemia

- Around 1% of pts with acute abdomen
- > 70 yrs, 10% of pts with acute abdomen
- Mortality > 20%
- Swift diagnosis and treatment paramount
- Clinical presentation varies & evidence is lacking....

ESVS Guideline 2017
Plenty of room for discussion
Dutch Mesenteric Ischemia Study Group
DMIS

• Nationwide multidisciplinary research group
• Founded in 2015
• Goal:
  – Improve diagnostics
  – Improve therapy
  – Improve care

• Most important features:
  – Multidisciplinary collaboration
  – Multicenter studies & publications & protocols

Scientific research, consultation and centralization
Specialized ischemia center
Peripheral/academic center
**Timely diagnosis of AMI Biomarkers or CTA?**

<table>
<thead>
<tr>
<th>Biomarker</th>
<th>Sensitivity (95%CI)</th>
<th>Specificity (95%CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>L-lactate</td>
<td>86% (73-94)</td>
<td>44% (32-55)</td>
</tr>
<tr>
<td>D-dimer</td>
<td>96% (89-99)</td>
<td>40% (33-47)</td>
</tr>
<tr>
<td>CT</td>
<td>94% (90-97)</td>
<td>95% (93-97)</td>
</tr>
</tbody>
</table>

*Cudnik M et al. A systematic review & meta-analysis. Academic Emergency Medicine 2013*
Figure 3. Meta-analysis of bowel resection rates after open and endovascular therapy of AMI.

Figure 4. Meta-analysis of 30-day mortality rates after open and endovascular therapy of AMI.

AMI: endo first strategy!

- Mesenteric stenting (PMAS) preferred method
- Adjunctive thrombolysis if necessary
- Thrombectomy devices promising

Thrombectomy Devices in the Treatment of Acute Mesenteric Ischemia: Initial Single-Center Experience

Bruno Freitas, Yvonne Bausback, Johannes Schuster, Matthias Ulrich, Sven Bräunlich, Andrej Schmidt, and Dierk Scheinert, Leipzig, Germany, Arapiraca and Alagoas, Brazil
AMI: endo first strategy!

- 20 patients
- High technical success rate
- Short procedure time
- 2 minor device related complications
If PMAS fails...

- ROMS: Retrograde Open Mesenteric Stenting
- Several retrospective series report high technical success rates\textsuperscript{1-3}

\textsuperscript{1}Oderich J Vasc Surg 2018; \textsuperscript{2}Roussel J Vasc Surg 2019; \textsuperscript{3}Blauw J Vasc Surg 2014
Suspicion of AMI

1. Biochemistry (WBC, D-dimer)
2. CTA

First choice: PMAS +/- CDT
Second choice: ROMS
Third choice: Bypass

Observation

Conservative

(Re) Laparotomy

Discharge
Acute Mesenteric Ischemia

- Lack of evidence
- High mortality, swift diagnosis & Rx crucial
- Endo first strategy
- Thrombectomy devices promising
- ROMS good option before bypass
- New evidence coming from DMIS....
Covered Stents versus Bare-Metal Stents in Chronic Atherosclerotic Mesenteric Ischemia

Inclusion completed
Results expected in 2021

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Serum Markers in AMI

Derikx JP, Schellekens DH, Acosta S. 
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