Pharmacomechanical Thrombolysis Of Large Volume (Extensive) DVT Using The Rapid Lysis Technique

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Disclosures:

- Honoraria/Speaker: BSC, BTG/EKOS, Cook
- Research Support: BSC, BTG/EKOS, Cook
- Consultant: Merit Medical
- Royalties: Merit Medical

*** Ajet is not approved for use in the IVC ***

What The Hell Is Rapid Lysis?

Rapid Lysis At Work

RAPID LYSIS PMT

Technique

- Enoxaparin 1mg/kg BID prior to thru 1 month post
- tPA added directly to Ajet NSS w/o Hep (10mg/500 vs 25mg/1000)
- Thru 8 Fr sheath, 8 Fr HOCKEY-STICK guiding catheter with coaxial placement of Ajet catheter just beyond tip
- Pull wire back to tip of Ajet – allowing for guide angulation & WALL TO WALL apposition
- Rotate and spiral Hockey stick guide while retract system from central to peripheral aspect of the thrombus
Rapid Lysis for Trauma
25 Yr old pregnant female, s/p MVA days prior with multiple pelvic fx's, emergent C-section IVC filter placed in OR.
  • Developed BLE pain & swelling
  • US- Extensive BLE DVT.

Rapid Lysis PMT- 90 min
16 yrs later: No recurrent DVT or PTS

Rapid Lysis – Post Surgery
* 55 yo obese female with hx of DVT, filter & recent TIA’s
* s/p incisional hernia repair - developed large abdominal wall hematoma
* surgical evacuation previous day
* developed IVC and BLE DVT with severe swelling and phlegmasia.

Rapid Lysis
* 10 mg tPA / 500 ml NSS DVX Ajet- total 561 ml solution
* Total time 48 min.
* > 5 yrs – no DVT or PTS

Results – CCHS Registry
Review of 313 consectutive pts w/ data
* 147 (47%) patients were done in a single session
* 166 (53%) patients underwent additional CDT
  • Mean Infusion time 17.7 hours (overnight)
  • PTA
    • PTA (39%)
    • PTA + stent
      106 (34%)

53%
47%
Results - Patency on Ultrasound

- 3 months: 256 of 275 limbs (94%)
- 6 months: 180 of 202 (90%)
- 12 months: 73 of 95 (77%)

<table>
<thead>
<tr>
<th>Patency Limbs (%)</th>
<th>Months</th>
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<tbody>
<tr>
<td>94</td>
<td>3</td>
</tr>
<tr>
<td>90</td>
<td>6</td>
</tr>
<tr>
<td>77</td>
<td>12</td>
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Adverse Events
- Acute bleed: 9 (2%)
- Hematoma: 4 (1%)
- Bleeding: 1 (1%)

Results – Single Session Potential Savings

<table>
<thead>
<tr>
<th>Procedure Times</th>
<th>Ajet Alone Ajet + 1d CDT (SDU) Ajet + 1d CDT (ICU)</th>
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<tbody>
<tr>
<td>CDT Drip Times (mean)</td>
<td>57.6 hours (2.4 days)</td>
</tr>
<tr>
<td>Procedural Times</td>
<td>2.0 hrs</td>
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<td>Bleeding Complications</td>
<td>5% (major &amp; minor combined)</td>
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147 Patients

Total Savings: $1,204,025.55 over SDU
$1,444,370.55 over ICU

Downgrade Lytic Contraindications

- Recent or Active Bleed
- CVA (within 2 mos.)
- Major surgery (within 10 days)
- Pregnancy or recent delivery
- CNS mets

*Absolute for CDT vs Relative PMT

PEARL Comparison – CDT drip time

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<th>CaVenT™</th>
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<td>CDT</td>
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<tr>
<td>Acute</td>
<td>75% (14 days)</td>
<td>60% (14 days)</td>
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<td>Chronic</td>
<td>25% (30 days)</td>
<td>40% (30 days)</td>
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<td>Primary lytic</td>
<td>TPA</td>
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<td>CDT Drip Times</td>
<td>48 hrs</td>
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<td>2.0 hrs</td>
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Findings suggest Rapid Lysis can:
- reduce need for post procedure lytics
- reduce lytic infusion time
- reduce risk of bleeding from lytics
- reduce need for ICU bed => Vasc floor stepdown
- reduce risk for DVT recurrence
- reduce risk of PE
- reduce risk of Post Thrombotic Syndrome

THANK YOU