Thrombotic Thrombocytopenia Purpura - Consensus Conference

April 10th, 2012
Atlanta, GA

Results

Ravi Sarode, MD
Consensus Process

- The TTP-CC subcommittee developed 7 key questions
- Sent to the 7 speakers for electronic voting in Yes or No format
- Will be published in JCA soon 😊
Q.1 Untreated TTP carries a high mortality rate. If a patient presents with

1) unexplained microangiopathic hemolytic anemia (Coombs’ negative anemia),

2) thrombocytopenia (platelet count less than 100x10⁹/L), and

3) without oliguric renal insufficiency, should emergent therapeutic plasma exchange be initiated with plasma as a replacement fluid?

7/7 Unanimous agreement
Q2. Do you agree with the following definitions related to treatment of TTP?

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Treatment Response</td>
<td>A platelet count above $150 \times 10^9/L$ for 2 consecutive days accompanied by normal or normalizing LDH and stable or improving neurological deficits</td>
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<tr>
<td>Durable Treatment Response</td>
<td>Treatment response (as defined above) lasting at least 30 days after discontinuation of plasma exchange</td>
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<tr>
<td>Exacerbation</td>
<td>Recurrent disease within 30 days after reaching treating response</td>
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<tr>
<td>Relapse</td>
<td>Recurrent disease 31 days or longer after reaching treatment response</td>
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<tr>
<td>Refractory disease</td>
<td>There is no treatment response by day 30 and/or no durable treatment response by day 60</td>
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6/6 Unanimous agreement, 1 recused
Q3. Congenital TTP (Upshaw Shulman Syndrome) diagnosis is based on a genetic defect in the ADAMTS13 gene which is phenotypically associated with a severe enzyme deficiency (<10%) in the plasma. Should a diagnosis of acquired TTP also be based on a severe deficiency of ADAMTS13?

4/3 Simple Majority agreement
Q4. Current evidence strongly supports autoimmunity as a cause of acquired TTP. Management of autoimmune disorders often includes immunosuppression therapy. Does currently available evidence support routine use of corticosteroids in the treatment of newly diagnosed TTP?

4/3 Simple Majority agreement
Q5. Current literature suggests that despite aggressive plasma exchange therapy, 30-50% of TTP patients have exacerbations, relapses or refractory disease. Case reports and case series in such scenarios have shown Rituximab, an anti CD-20 chimeric monoclonal antibody, to be effective. Should rituximab be used routinely in patients with the features listed above?

6/1 Strong agreement
Q6. TTP microthrombi consist of platelets and von Willebrand factor. Platelet transfusion in a patient with a suspected diagnosis of TTP (e.g., for a central line placement) may theoretically cause worsening of platelet-von Willebrand microthromboses. Should platelet transfusion be reserved for life threatening bleeds (e.g., an intracranial bleed)?

5/2 Majority agreement
Q7. Congenital TTP patients are generally treated with plasma infusion therapy. Studies show that fresh frozen plasma, thawed plasma and frozen plasma at 24 hours (FP24) contain nearly the same amount of ADAMTS13 per unit volume. Compared to plasma, cryoprecipitate has a higher amount of ADAMTS13 per unit volume. The literature shows that congenital TTP has also been treated with cryoprecipitate and intermediate purity factor FVIII concentrate that contains a large amount of von Willebrand factor. Can cryoprecipitate be substituted for plasma (in a fluid restricted clinical situation) to treat a congenital TTP episode?

5/1 Strong agreement, 1 no opinion