Publication Brief

Intervention based on monthly monitoring decreases hemodialysis access thrombosis.

OBJECTIVE
To determine whether intervention based on monthly monitoring decreases hemodialysis access thrombosis.

STUDY
- 103 patients (68 with arteriovenous [AV] fistulas and 35 with polytetrafluoroethylene [PTFE] grafts were randomized;
- Mean follow-up was 197 days;
- Study group had monthly measurements of access flow (QAT) and monthly measurements of static venous pressure (VPS);
- Control group had no monthly monitoring;
- Patients with access flow <750 mL/min or with static venous pressure > or =0.5 were referred for angiography and angioplasty of stenotic lesions > or =50%.

RESULTS

<table>
<thead>
<tr>
<th>Group</th>
<th>Development of access thrombosis</th>
<th>Thrombosis developed in AV fistulas</th>
<th>Thrombotic episodes</th>
<th>Thrombosis Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitored (n = 62)</td>
<td>9.7% (6 of 62)</td>
<td>2.4% [2 of 42]</td>
<td>19 /100 patient-years</td>
<td>QAT: 5.9%</td>
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<tr>
<td>Control (n = 41)</td>
<td>22% (9 of 41)</td>
<td>15.4% [4 of 26]</td>
<td>125 /100 patient-years</td>
<td>VPS: 30.3%</td>
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CONCLUSION
Intervention based on monthly access flow measurement or static venous pressure decreased hemodialysis access thrombosis. Measurement of access flow tended to result in lower thrombosis rates than after static venous pressure. We believe that monthly access flow measurement will ensure the lowest incidence of thrombosis and decrease the cost of access maintenance.

REFERENCES