Recurrent miscarriage: recommendations for care from the Lancet Series on Miscarriage

Investigating recurrent miscarriage

<table>
<thead>
<tr>
<th>Test</th>
<th>Therapeutic benefit?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thyroid function</td>
<td>YES</td>
</tr>
<tr>
<td>Lupus anticoagulant</td>
<td>WEAK</td>
</tr>
<tr>
<td>Anticardiolipin antibodies</td>
<td>UNCLEAR</td>
</tr>
<tr>
<td>Transvaginal pelvic ultrasound</td>
<td></td>
</tr>
</tbody>
</table>

Four essential tests for investigating recurrent miscarriage

- **Thyroid function**: A blood test to check thyroid function. If thyroid is underactive or overactive, treatment can improve outcomes.
- **Lupus anticoagulant**: Both these blood tests look for evidence of antiphospholipid antibodies. If positive, treatment with aspirin and heparin could improve outcomes.
- **Anticardiolipin antibodies**: Both these blood tests look for evidence of antiphospholipid antibodies. If positive, treatment with aspirin and heparin could improve outcomes.
- **Transvaginal pelvic ultrasound**: An ultrasound test to look for issues with the womb. However, there is no clear evidence treatment improves outcomes.

In some cases, these extra tests could also be useful:

- **Chromosome analysis**: Chromosome analysis can help see if there were abnormalities in the miscarried embryo, and help plan future care.
- **Parental karyotyping**: Chromosome analysis of the parents can help identify problems with arrangement of chromosomes, and help plan future care.

Prevention

There is no high-quality evidence yet that any treatment is useful in preventing miscarriages in women at high risk of miscarriage, but evidence suggests some treatments could help:

- **Progesterone**: Progesterone can increase livebirth rates for women who experience recurrent miscarriage. Quality of evidence: Moderate.
- **Levothyroxine**: Levothyroxine may decrease the risk of miscarriage in women with mild thyroid issues. Quality of evidence: Low.
- **Aspirin and heparin**: A combination of aspirin and heparin may increase livebirth rates in women who have antiphospholipid antibodies. Quality of evidence: Low.

Delivery of care

For the UK, a graded approach is proposed:

**After first miscarriage**
- Patient support groups
- Online self-help guidance and information on preconception care, folic acid and vitamin D supplementation
- Referral for management of chronic medical conditions (e.g., diabetes, hypertension)
- Screening for mental health issues

**After second miscarriage**
- Appointment at nurse/midwife-led miscarriage clinic
- Full blood count and thyroid function tests
- Referral for specialist care if tests are abnormal or a chronic medical condition exists
- Early pregnancy reassurance scans in following pregnancies

**After third miscarriage**
- Appointment at medical consultant-led clinic
- Additional tests and full range of treatments
- Genetic testing on miscarried embryos
- Blood tests for antiphospholipid antibodies
- Pelvic ultrasound scan
- Parental karyotyping (if needed)
- Screening and care for mental health issues and future pregnancy risks (e.g., preterm birth, fetal growth restriction and stillbirth)

For full details, read the Lancet Series on Miscarriage. Tommy’s is registered charity no 1060508 and SC039280.