Persistent isolated cyclical vaginal bleeding (premature menarche) not associated with GnRH pubertal response or endometrial echo should be considered for examination under general anaesthesia (EUA)

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BACKGROUND & OBJECTIVES

BACKGROUND:

• Isolated prepubertal menarche is described in the absence of other signs of precocious sexual development1 and is a self-limited condition2.
• This condition remains unclear in it’s aetiology and there is currently no consensus on investigations to be undertaken.

OBJECTIVES:

To evaluate the following factors associated with persistent isolated cyclical vaginal bleeding:
• Clinical presentation
• Gonadotrophin-releasing hormone (GnRH) stimulation test
• Genital examination under anaesthetic (EUA)
• Pelvic ultrasound findings

METHODS

• Retrospective case series of 14 girls with isolated prepubertal menarche
• Data collection from 2 centres between January 2007 and December 2014
• All girls presented with persistent cyclical vaginal bleeding with no other signs of precocious puberty

RESULTS

<table>
<thead>
<tr>
<th>DEMOGRAPHICS</th>
<th>Mean</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>7.4</td>
<td>5.0 to 9.67</td>
</tr>
<tr>
<td>Height SDS</td>
<td>0.33</td>
<td>-1.02 to +1.68</td>
</tr>
<tr>
<td>Weight SDS</td>
<td>1.01</td>
<td>-0.74 to 2.76</td>
</tr>
<tr>
<td>BMI</td>
<td>19.6</td>
<td>14.6 to 29.3</td>
</tr>
</tbody>
</table>

• Vaginal bleeding was reported to be cyclical, ranging from 1 weekly to 3 monthly, lasting 1-4 days in duration.
• Bleeding persisted between 6 to 18 months in all girls
• Pelvic ultrasound showed prepubertal uterus with no identifiable endometrial echo in all girls

<table>
<thead>
<tr>
<th>GnRH STIMULATION TEST</th>
<th>Mean</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>LH peak (U/l)</td>
<td>3.1</td>
<td>0.3 – 14</td>
</tr>
<tr>
<td>Peak LH/FSH Ratio</td>
<td>0.23</td>
<td>0.07 – 0.66</td>
</tr>
</tbody>
</table>

• Oestradiol levels were < 100 pmol/l in all girls
• Bone age showed no advancement in all girls
• EUA was normal in 7 out of 8 girls.
• One girl was found to have 1.5 cm foreign body; she presented with cyclical vaginal spotting weekly for 6 months prior to EUA

CONCLUSIONS

• Persistent isolated cyclical vaginal bleeding was not associated with identifiable endometrial echo on pelvic ultrasound, GnRH pubertal response or elevated oestradiol levels.
• Low oestradiol levels may result in an increased sensitivity of the of the endometrium resulting in vaginal bleeding.
• EUA should be considered in persistent isolated cyclical vaginal bleeding to exclude other causes such as a foreign body

REFERENCES: