New AAP clinical report addresses management of children with signs of early puberty

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It's a common scenario in your office. A mother tells you her young daughter has started going through puberty, and she fears the girl will start her periods too soon. Do you order tests, refer immediately to a specialist or just monitor during follow-up visits?

The majority of such cases are normal variations that require neither testing nor treatment. Yet knowing when to worry and when to reassure may be challenging to sort out during the visit.

A new AAP clinical report from the Section on Endocrinology aims to help primary care providers deal with these situations more knowledgably and efficiently, and to co-manage the more benign scenarios with specialists. The report *Evaluation and Referral of Children With Signs of Early Puberty* is available at [http://pediatrics.aappublications.org/cgi/doi/10.1542/peds.2015-3732](http://pediatrics.aappublications.org/cgi/doi/10.1542/peds.2015-3732) and is published in the January issue of *Pediatrics*.

**Typical scenarios**

The most common situation is a young patient with pubic hair often accompanied by axillary odor, starting before age 8 in girls or before age 9 in boys. There is no breast tissue in girls and no genital enlargement in boys, and growth usually is not accelerated.

Premature adrenarche is the diagnosis in nearly all of these cases; it does not indicate that periods will start early or that future growth will be stunted. Reassurance without testing usually is the best strategy, with referral in selected cases that are atypical or to reassure anxious parents. Even when genital hair appears before age 1, it generally does not indicate a more serious hormonal disorder.

Another common situation is the young girl, usually under age 3, with persistent but nonprogressive breast development, which almost always is diagnosed as premature thelarche. Again, reassurance and monitoring is the best strategy. In 4- to 8-year-old girls who are slightly overweight, it often is difficult to distinguish breast tissue from fat tissue by inspection, but careful palpation usually will help make this distinction.

**When to refer**

So what are the red flags that should prompt an immediate referral to an endocrinologist?

Early breast development that clearly progresses over a four- to six-month period of observation, especially when the patient also crosses growth percentiles upward, is worrisome and could represent true or central precocious puberty.

Also, any girl who has Tanner 3 breast development before age 8 or any boy who has enlargement of the penis and/or testes before age 9 needs to be referred. Although there clearly is a trend over the past few decades for an increasing proportion of girls to start breast development before age 8, the number of cases that progress rapidly enough to merit consideration of treatment still is relatively small.

The report discusses the rationale for treatment with a class of drugs called gonadotropin-releasing hormone analogs, which are effective in slowing puberty, preventing early cessation of growth and delaying the onset of menses. This therapy is expensive, so a decision to treat can be made only after careful clinical and hormonal evaluation, often including determination of a bone age for adult height prediction, and discussion with the family.
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about the benefits of and need for intervention.

Dr. Kaplowitz, a lead author of the clinical report, is immediate past chair of the AAP Section on Endocrinology Executive Committee.