CONCERNS FOR EARLY PUBERTY REFERRAL GUIDELINE

MAINE MEDICAL PARTNERS - PEDIATRIC SPECIALTY CARE (DIV. OF ENDO & DIABETES) • 887 CONGRESS ST, SUITE 100, PORTLAND, ME • (207) 662-5522

HIGH RISK

SUGGESTED EMERGENT CONSULTATION

SYMPTOMS AND LABS

Girls ‹ 8, boys ‹ 9 years old

AND

Breast development or testicular enlargement with or without hair development (exception: breast development before age 2 years is often physiologic)

Idiopathic central precocious puberty is the most common etiology but is a diagnosis of exclusion

SUGGESTED PREVISIT WORKUP

Document parental heights, age of menarche in mother, age of final adult height in father

Bone age, which is often advanced

Labs best sent by endocrinology due to assay variation and challenging interpretation

Endocrine visit in less than ‹ 6 weeks

MODERATE RISK

SUGGESTED CONSULTATION OR CO-MANAGEMENT

SYMPTOMS AND LABS

Girls ‹ 8, boys ‹ 9 years old

AND

Only sign is pubic or axillary hair development (premature pubarche)

AND

No breast development or testicular enlargement

AND

Bone age ‹ 2 SD advanced, Height › 50th %

Likely diagnosis is “premature adrenarche” (PA), an early awakening of adrenal androgen production

SUGGESTED WORKUP

PA is a potential risk factor for metabolic syndrome and PCOS

The only way to confirm PA is with labs, although these may not always be needed

PA is more common in girls with obesity, see OBESITY guideline

Boys with PA are more rare, endocrine consultation recommended for assessment of pathologic hyperandrogenism

LOW RISK

SUGGESTED ROUTINE CARE

SYMPTOMS AND LABS

Girls › 8, boys › 9 years old

AND

No concerns for short stature

AND

Only sign is hair development or axillary odor

OR

Slowly advancing breast development in girls

OR

Slowly advancing bilateral testicular enlargement in boys
(items above are likely normal findings)

Bone age may be helpful

SUGGESTED MANAGEMENT

Reassurance

Have family call if noticing rapid progression of puberty

Reassess growth and development in 4-6 months, assess growth velocity*

CLINICAL PEARLS

- Obesity alone can accelerate growth velocity and bone age, making pubertal assessment difficult.
- Pubertal development between ages 2-6years is more likely to be a serious endocrine disorder.
- The first sign of true puberty in boys and girls is testicular enlargement and breast development, respectively.
- *Growth velocity (GV) = (change in height in cm/weeks between measurements)x52. Using Heights 4-6 months apart is more accurate.
- GV is around 4-5 cm/year prior to puberty. If GV ›6-7cm/year and accelerating, puberty is more likely.
- Differential diagnosis for early puberty is extensive: pituitary, gonadal, adrenal, or exogenous causes are all considerations.
- Central precocious puberty can be easily treated with GnRH agonists, a safe and effective therapy that can prevent premature closure of the growth plates and short stature. Premature adrenarche by contrast is treated with lifestyle modification.

Maine Medical PARTNERS

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