# 0 - REI & AG

Side 1

Welcome to the lecture *Reproductive endocrinology and adolescent gynecology*. This is the first group exercise. Please indicate one more alternatives after discussion in the team. **You can use any information source.**

What is your team number? *

Sideskift

Side 2

A 15-year-old patient comes in with her mother because she has never had a period. Her mother relates the patient seemed to be developing normally and had normal breast development that started about three years ago. She met her developmental milestones in childhood. She has not had any significant medical illnesses, and her family history is unremarkable.

Her mother is worried that the patient has not started her period yet. The patient is not concerned about this but would like to know when she should expect to start menstruating.

Your next step: *

- Explain that delayed puberty is normal and schedule an appointment in 6 months.

- Order cranial MRI, DXA scan, and karyotype.
- Take further anamnesis and perform a physical.

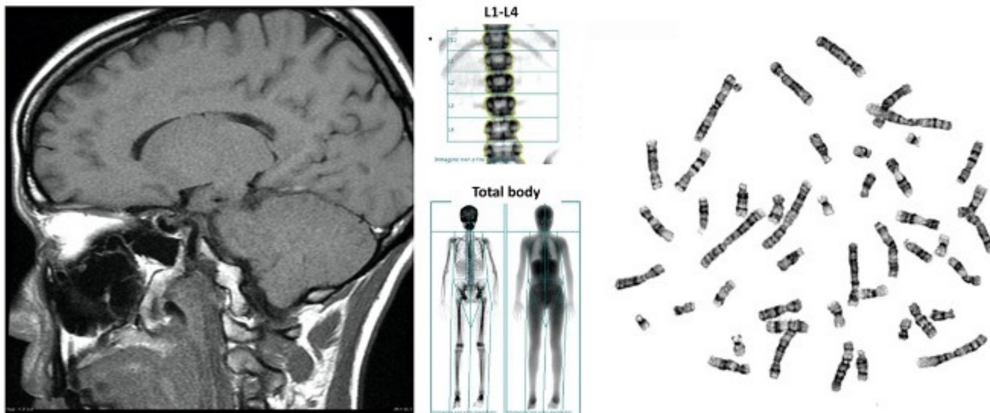
Sideskift

Side 3

Dette elementet vises kun dersom alternativet «Order cranial MRI, DXA scan, and karyotype.» er valgt i spørsmålet «Your next step:»

You got all the images on a CD, maybe it will help.

Dette elementet vises kun dersom alternativet «Order cranial MRI, DXA scan, and karyotype.» er valgt i spørsmålet «Your next step:»




Dette elementet vises kun dersom alternativet «Order cranial MRI, DXA scan, and karyotype.» eller «Explain that delayed puberty is normal and schedule an appointment in 6 months.» er valgt i spørsmålet «Your next step:»

You would probably want to go back and select an other alternative.

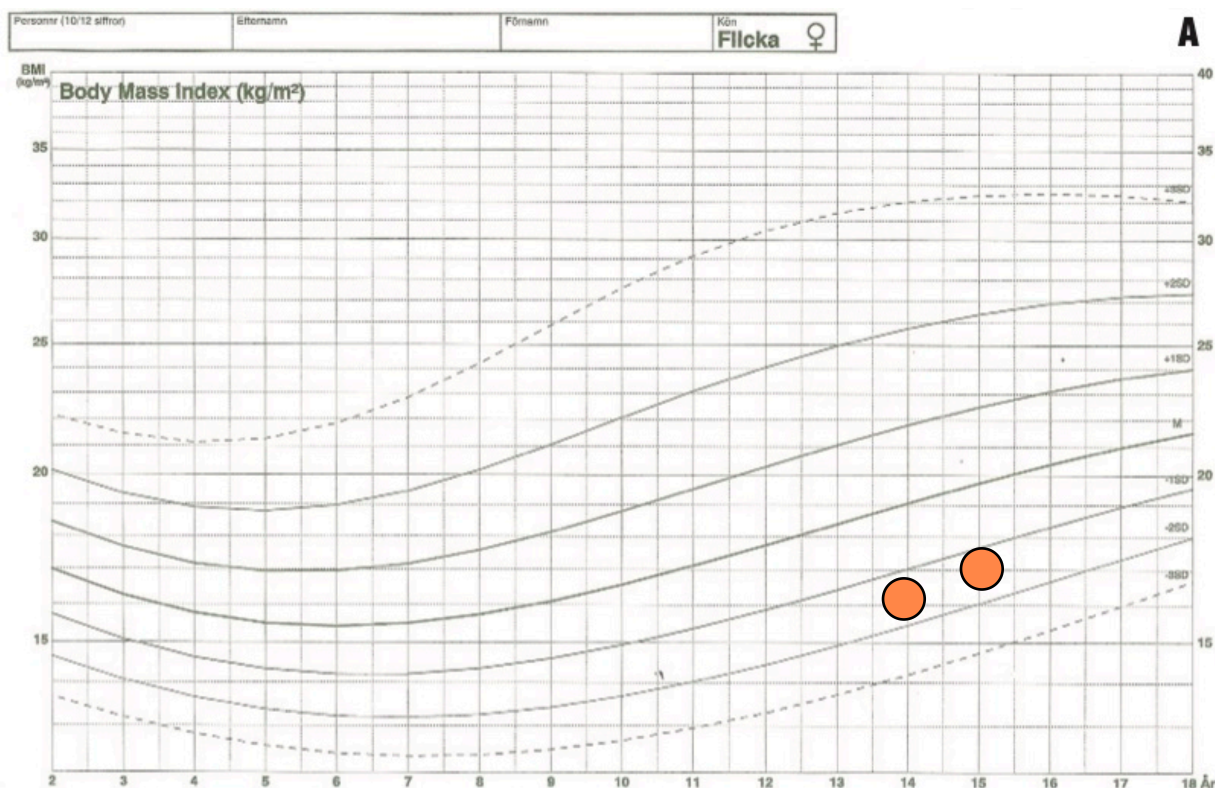
Dette elementet vises kun dersom alternativet «Take further anamnesis and perform a physical.» er valgt i spørsmålet «Your next step:»

After her mother leaves the room, a detailed social history is taken. The patient reports that she is active in school and is on the soccer team. She works out with the team and runs. She does well in school. She lives at home with her parents and siblings and reports no safety concerns. She keeps a strict vegetarian diet, and does not induce vomiting, binge-eat, or use laxatives. She reports she identifies as a woman, does not label herself as straight or gay, currently has a boyfriend but has never engaged in vaginal intercourse.

Dette elementet vises kun dersom alternativet «Take further anamnesis and perform a physical.» er valgt i spørsmålet «Your next step:»

The patient is well appearing, BP is 100/60, her current BMI is 17 kg/m2 (was 16 one year ago). There is no thyroid nodularity or mass.

Dette elementet vises kun dersom alternativet «Take further anamnesis and perform a physical.» er valgt i spørsmålet «Your next step:»



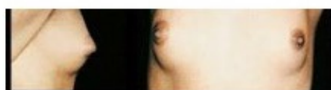

Sideskift

Side 4

Dette elementet vises kun dersom alternativet «Take further anamnesis and perform a physical.» er valgt i spørsmålet «Your next step:»

After describing the indicated genital exam and obtaining consent from the patient, a limited physical exam is performed. The abdomen is soft, non-tender, with no masses. The external genitalia are with normal labia majora, labia minora, clitoris, and a patent vaginal opening. Breast and pubic region as on images.

Dette elementet vises kun dersom alternativet «Take further anamnesis and perform a physical.» er valgt i spørsmålet «Your next step:»



Sideskift

Side 5

What is the differential diagnosis of the patient's presentation? *

Pregnancy
Delayed puberty:
1. constitutional delay
2. ovarian insufficiency (DSD, 45,X, etc)
3. congenital absence of uterus or vagina (e.g. MRKH)

Just a single test available in the lab to narrow down your diagnosis. Which one do you order? *

hCG - all patients with uterus and ovaries may be pregnant until proven otherwise. If pregnancy was excluded, gonadotropins, sex steroids, and karyotype would help further.

Sideskift

Side 6

You receive the following lab results:

| | **Result** | **Reference** |
|---|---|---|
| hCG | 0 IU/l | <1 |
| FSH | 4 IU/l | < 12 |
| LH | 1.5 IU/l | < 10 |
| estradiol | 0.06 nmol/l | 0.09 - 0.21 (early follicular phase) |
| prolactin | 212 mIU/l | 100 - 500 |

Which imaging method would be most useful to further narrow your diagnosis? *

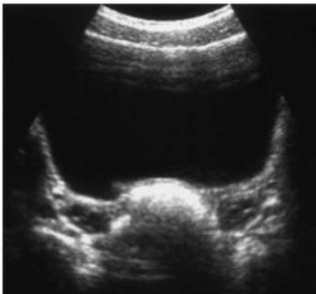
- (●) Pelvic ultrasound
- ( ) Cranial MRI
- ( ) DXA

Justify your choice briefly: *

Normal female pelvic anatomy would exclude many structural causes of primary amenorrhoea.

Side 7

Dette elementet vises kun dersom alternativet «Pelvic ultrasound» er valgt i spørsmålet «Which imaging method would be most useful to further narrow your diagnosis?»

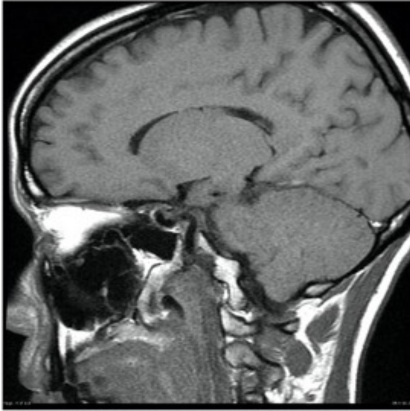


Which causes of delayed puberty does the US finding make unlikely? *

Dette elementet vises kun dersom alternativet «Pelvic ultrasound» er valgt i spørsmålet «Which imaging method would be most useful to further narrow your diagnosis?»

Müllerian abnormality, some forms of DSD incl. gonadal dysgenesis

Dette elementet vises kun dersom alternativet «Cranial MRI» er valgt i spørsmålet «Which imaging method would be most useful to further narrow your diagnosis?»

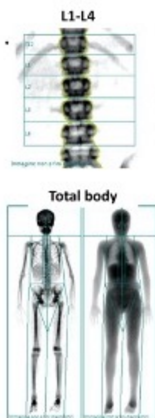


Which causes of delayed puberty does the MRI finding make unlikely? *

Dette elementet vises kun dersom alternativet «Cranial MRI» er valgt i spørsmålet «Which imaging method would be most useful to further narrow your diagnosis?»

Pituitary adenoma

Dette elementet vises kun dersom alternativet «DXA» er valgt i spørsmålet «Which imaging method would be most useful to further narrow your diagnosis?»




DXA shows z scores -0.8 for lunar spine, 0.3 for hip, and 0.5 for forearm, which are all within normal range (z > -2.0). Which causes of delayed puberty does this make unlikely? *

Dette elementet vises kun dersom alternativet «DXA» er valgt i spørsmålet «Which imaging method would be most useful to further narrow your diagnosis?»

Athlete triad (amenorrhoea, negative calorie balance, reduced bone density)

Sideskift

Side 8

How would you counsel the patient and her parent, which key topics would you discuss? *

Delayed puberty is most often constitutional,
and may respond well to treatment if a specific cause was identified.
Empiric treatment includes low-dose long-term sex steriod supplementation.

In this particular case, the parent and patient may be reassured about good prognosis.

Sideskift

Side 9

Sources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Se nylige endringer i Nettskj