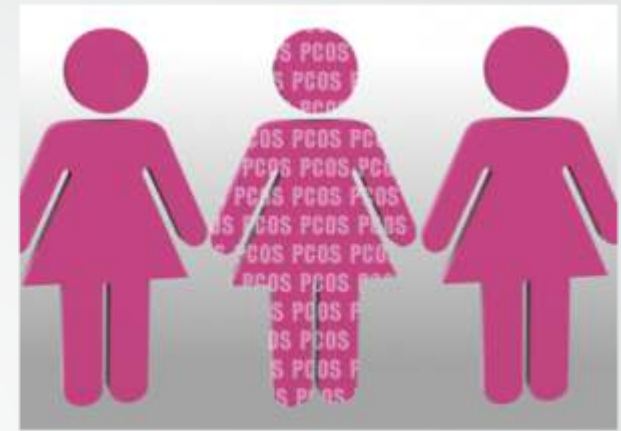




HORMON PROFILE IN 416 ADOLESCENT GIRLS WITH MENSTRUEL İRREGULARİTY

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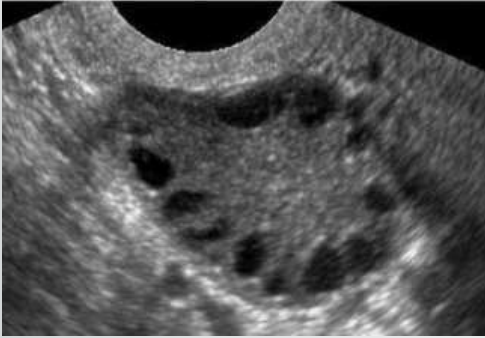
POLYCYSTIC OVARY SYNDROME...



- the most common endocrinological disease in reproductive age women
- 6 and 15%

from Morris S et al, 2016

IN ADOLESCENTS



Polycystic ovary morphology

Acne

Menstrual irregularity

Hirsutismus



	Hyperandrogenism	Chronic anovulation	Polycystic ovaries
1990, NIH	+	+	-
2003, ESHRE/ASRM	+	+	+
2009, Androgen Excess Society	+	+	+
2012, ESHRE/ASRM	+	+	+
2013, Endocrine Society Clinical Practice	+	+	Not in adolescents

from Legro RS et al, 2013

AIM...



...to identify hormone levels in adolescent girls who were admitted to our clinics with menstrual irregularities regardless of other diagnostic criteria for PCOS

MATERIAL and METHOD

- 416 patients aged 12-16 years
- between January 2014 and March 2016
- menarche for at least 2 years
- blood samples on day 3-5 of menstrual cycle
- FSH, LH, E₂, total testosterone, free T₄, PRL and DHEA-S

	Mean	Median
FSH (mIU/mL)	7.44±13.16	5.66
LH (mIU/mL)	10.29±10.25	7.29
E ₂ (pg/mL)	55.5±56.2	42.00
TSH (μIU/mL)	2.19±1.34	1.85
Free T ₄ (ng/dL)	1.23±0.32	1.22
PRL (ng/mL)	17.34±10.45	15.36
Total testosterone (ng/mL)	0.36±0.20	0.34
DHEA-S (μg/dL)	258.2±131.9	235.45

	no (%)
TSH (μIU/mL)	
<0.51	8 (1.9)
0.51-2.30	379 (91.8)
>2.30	26 (6.3)
PRL (ng/mL)	
<23.3	339 (82.1)
>23.3	74 (17.9)
DHEA-S (μg/dL)	
<280	258 (62.5)
>280	155 (37.5)
LH/FSH ratio	
>2	270 (65.4)
<2	143 (34.6)

Bivariate correlation analysis: DHEA-S increased with the increase in LH and LH/FSH ratio

DISCUSSION

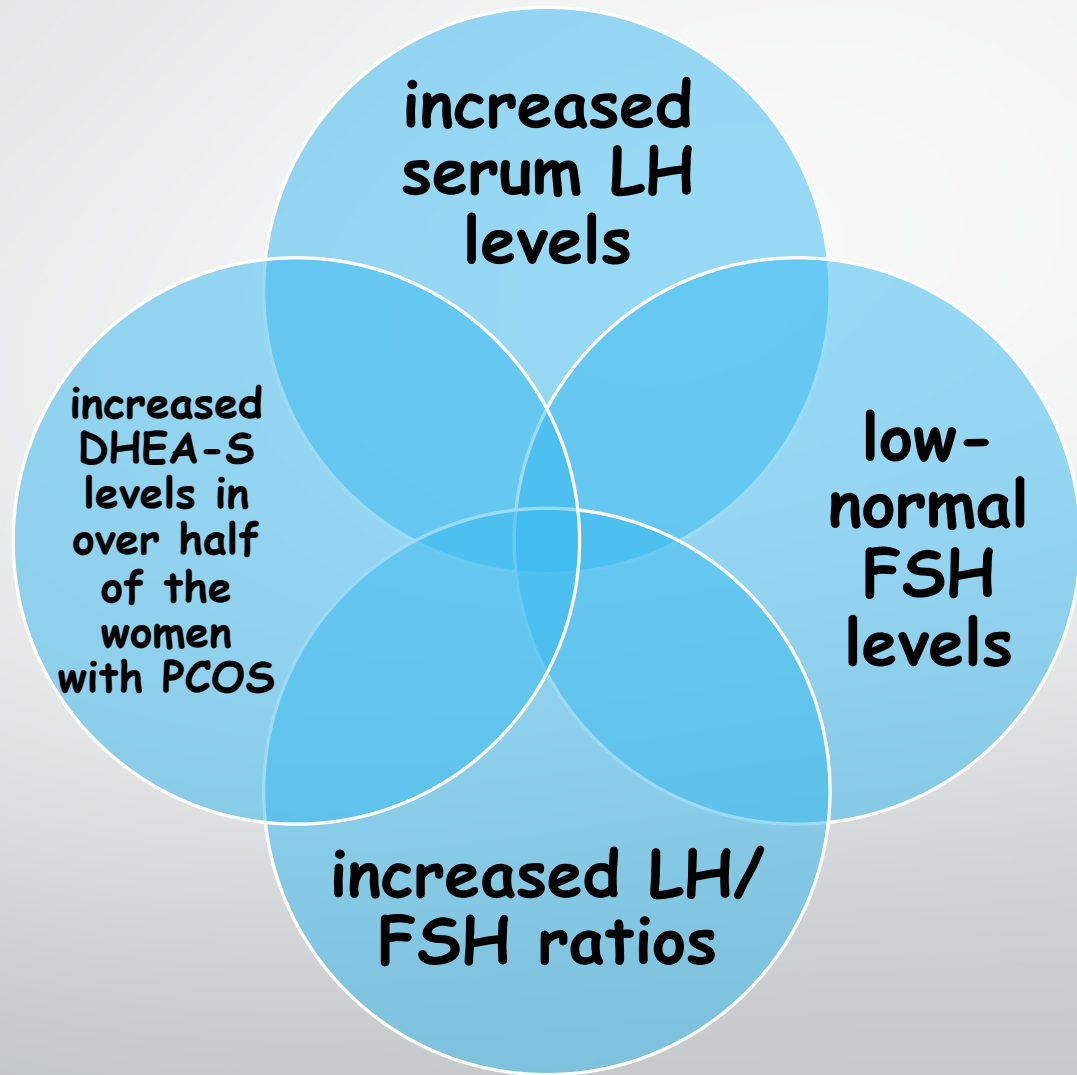
PCOM and increased ovarian volume could be diagnostic for PCOS in adult women, but in adolescents???

limitation about utility of USG especially in obese girls

clinical HA such as acne, hirsutism or alopecia commonly observed during normal pubertal period

Ferriman Gallwey scoring system can not be applied to adolescents who have not completed pubertal development

biochemical HA





Current guidelines emphasize the importance of elevated androgens as the most valuable finding in adolescents despite the ongoing debate on diagnosis of PCOS in adolescent girls

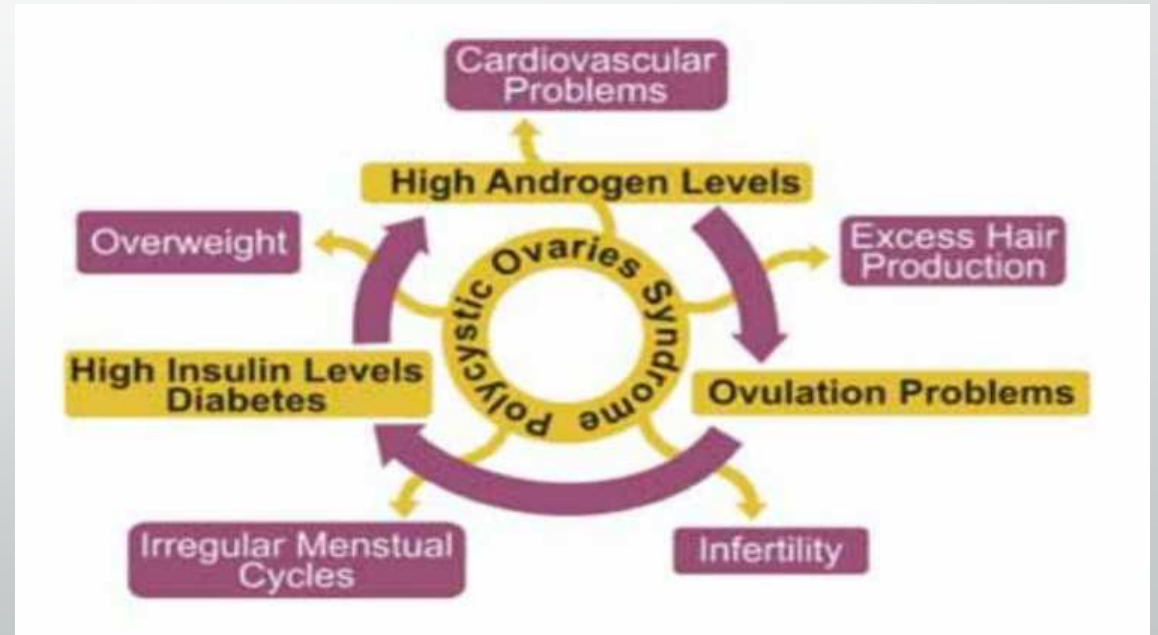
from Lanzo et al, 2015



Early diagnosis and management of PCOS in adolescents should be necessary due to association with metabolic outcomes in future

from Huang CC et al, 2015

There is necessity for longitudinal studies during adolescence to better understand the pathophysiology of the syndrome and to diagnose and manage as soon as possible.





THANKS FOR YOUR INTEREST...