

Referral of patients from Lithuania to determination of dehydroepiandrosterone sulphate and no clinical consequences of results

Julija Mazeikaite¹, Mazvydas Uzurnys¹, Ilona Banisauskaite¹, Aiste Galkine², Tomas Kurakovas¹, Zilvinas Venclovas¹, Rasa Steponaviciute¹, Vaidotas Urbanavicius², Rasa Verkauskiene¹, Valentinas Matulevicius¹.

¹Institute of Endocrinology, Lithuanian University of Health Sciences, Kaunas, Lithuania
²Vilnius University, Faculty of Medicine, Endocrinology Center

Introduction

Recently Matulevicius et al¹ found the case of a thirty-eight-year-old woman with complaints of secondary amenorrhea, hirsutism, decreased sexuality, weight gain and epileptic seizures. This patient also presented with elevated dehydroepiandrosterone sulphate(DHEAS) and testosterone levels. According to these symptoms we performed a retrospective study to see if there were more cases of dehoma (elevation of DHEAS + adrenal tumor).

Conclusion

The clinical features of the patients with high DHEAS reveals increase of body weight, BMI and hirsutism in women but increase of elevated blood pressure and frequency of adrenal tumor in men.

Methods

$$\text{DHEAS RATIO} = \frac{\text{DHEAS concentration of the patient}}{\text{DHEAS maximum value of determination kit of age group}}$$

The results were divided to high and normal according to the DHEAS Ratio (R).

We performed a retrospective analysis of 309 clinical history cases of which 162 presented with normal DHEAS concentration and 147 with elevated one. Clinical history cases were not randomly selected.

In Lithuania during 2014 1772 patients were referred for the dehydroepiandrosterone sulphate (DHEAS) concentration assessment.

	DHEAS	DHEAS Ratio	Testosterone
Healthy women	5.7± 3.05	0.54±0.23	3.29±1.36
↑↑↑ DHEAS	12.49±3.81	1.3±0.35	4.27±1.83
p	<0.001	<0.001	<0.00001

Table 1 . Concentration of DHEAS and testosterone of women.

Parameter	n	Hirsutism	Menstruation cycle disorder	Weight gain	Infertility	Elevated blood pressure	Body weight, kg (Mean±SD)	n (different items)
Normal	142	21.7%	32.3%	-	10.6%	8.1%	72.54±22.41	20
↑↑↑ DHEAS	123	39%	23%	8%	-	-	80.72±20.85	12

Table 2 . The complaints of female patients.

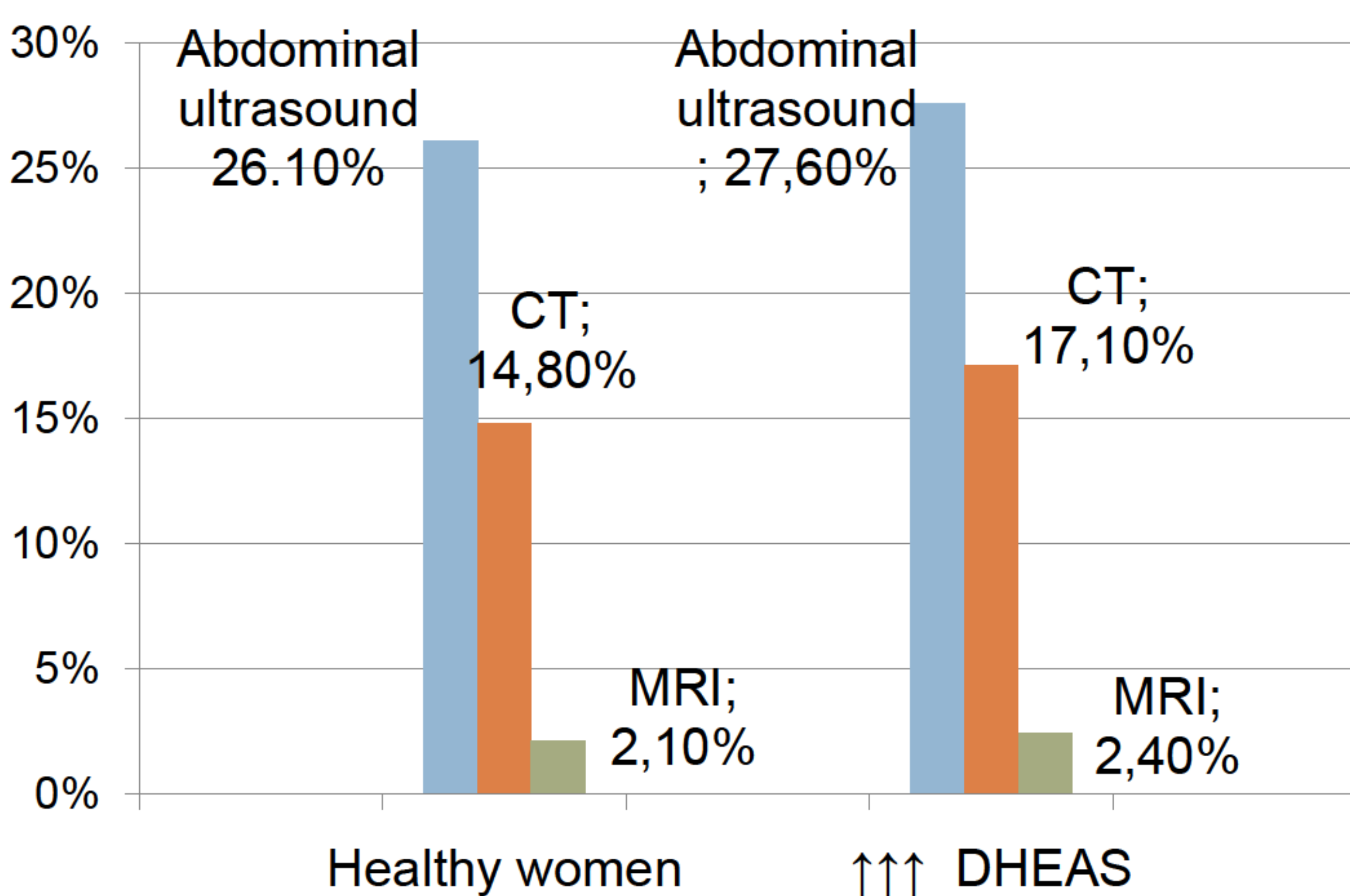


Chart 1. The percentage of diagnostic imaging of women.

	n	↑ Blood pressure	Adrenal tumor
Healthy men	20	10%	25%
↑↑↑ DHEAS	24	33%	29.2%

Table 3 . The complaints of male patients.

Results

From the list of DHEA-S assessment in Lithuania during 1 year (2014) we selected cases with normal and elevated DHEA-S.

In women with high DHEA-S, weight, body mass index and hirsutism were found statistically higher as compared with healthy women. No difference in menstrual cycle disorder was observed. In men, there was a clinical difference: in patients with high DHEAS, higher blood pressure was found as well as frequency of adrenal tumors.

References

¹ Matulevicius V, Ostrauskas R, Krasauskas V, Verkauskiene R, Ciaplinskiene L, Urbanavicius V. ADRENAL ANDROGEN PRODUCING ADENOMA ASSOCIATED WITH EPILEPTIC SEIZURES. Acta Endocrinologica; 2014;10(3):p487