



Abstracts 12th YES Meeting



Internal Medicine Paralell Oral Session

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PS004

Why novel methods are not always the best? – Multifactorial analysis of hyperandrogenism in women



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Aim: The aim of the work was to compare different methods of hormones evaluation, including blood and saliva samples and the reliability of those methods in diagnosing hyperandrogenism among women caused by various reasons.

Introduction: Hyperandrogenism among women is a common problem. There are different hormones that can be evaluated with various methods to diagnose and monitor patients. Less invasive and quicker methods of screening, like salivary samples, more and more are used in medicine. However, they may be not as accurate as expected.

Methods: 39 women with clinical or biochemical hyperandrogenism and 29 healthy individuals in control group were enrolled. The diagnosis of hyperandrogenic syndrome covered: 13 patients with polycystic ovary syndrome (PCOS), 23 with idiopathic hyperandrogenism, 2 with congenital adrenal hyperplasia and 1 adrenal cortical carcinoma. Assessed hormones included: serum total testosterone (T) measured with liquid chromatography-tandem mass spectrometry LC-MS and immunoassay, salivary T by Salimetrics test; DHEA-S, androstendione and 17-OH Progesterone by LC-MS and immunoassay.

Results: In 9 out of 38 patients' results of salivary testosterone showed normal levels, while with LC-MS method increased levels were depicted in the same women. Similarly, 41% women with hyperandrogenism had elevated testosterone with ELISA method, whilst having Salimetrics test results within normal range. In 28% normal testosterone levels measured by LC-MS method, DHES-S was elevated. All patients with elevated androstendione presented with elevated concentration of either testosterone or DHEA-S. Elevated DHEA-S was observed in 56.5% patients with FHS and 15.4% with PCOS.

Conclusion: Salivary testosterone is not a sufficient method in diagnosing biochemical hyperandrogenism. Measurement of serum testosterone by LC-MS itself is not enough to diagnose biochemical hyperandrogenism. DHEA-S should also be evaluated when hyperandrogenism is suspected. Androstendione measurement is not obligatory in diagnosis. This is the first study analyzing numerous hormones with various methods in patients with hyperandrogenism caused by different diseases.^{1–4}

References

1. Weisser JJ, Hansen CH, Poulsen R, Larsen LW, Cornett C, Styrisshave B. Two simple cleanup methods combined with LC-MS/MS for quantification of steroid hormones in in vivo and in vitro assays. *Anal Bioanal Chem.* 2016;408:4883–95.
2. Janssens G, Manginckx S, Courtheyn D, De Kimpe N, Matthijs B, Le Bizec B. Simultaneous detection of androgen and estrogen abuse in breeding animals by gas chromatography-mass spectrometry/combustion/isotope ratio mass spectrometry (GC-MS/C/IRMS) evaluated against alternative methods. *J Agric Food Chem.* 2015;63:7574–81.
3. Leerasing P, Wongwananuruk T, Indhavivadhana S, Techatrasak K, Ratanachaiyanont M, Angsuwathana S. Correlation of clinical and biochemical hyperandrogenism in Thai women with polycystic ovary syndrome. *J Obstet Gynaecol Res.* 2016;42:678–83, <http://dx.doi.org/10.1111/jog.12945> [Epub 2016 February 18].
4. Wang C, Catlin DH, Demers LM, Starcevic B, Swerdloff RS. Measurement of total serum testosterone in adult men: comparison of current laboratory methods versus liquid chromatography-tandem mass spectrometry. *J Clin Endocrinol Metab.* 2004;89:534–43.

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PS151

Comparison between effects of antibiotics, NSAIDs and their mixture on the growth of microorganisms



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Aim: To compare the effects of antibiotics, NSAIDs and their mixture on the growth of microorganisms.

Introduction: Commonly, when a patient has an infection, doctors prescribe NSAIDs for pain and inflammation that may be caused by infection as a part of symptomatic treatment. And antibiotics are also prescribed as an etiological treatment. Our experiment that was performed last year came to a conclusion