# Contents

List of publications

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Congenital Adrenal Hyperplasia and Disorders of Steroidogenesis</td>
<td>3</td>
</tr>
<tr>
<td>Steroidogenesis</td>
<td>6</td>
</tr>
<tr>
<td>Polycystic ovary syndrome (PCOS)</td>
<td>7</td>
</tr>
<tr>
<td>PCOS - Adolescence</td>
<td>7</td>
</tr>
<tr>
<td>PCOS - Dermatology and Body Hair Complications</td>
<td>8</td>
</tr>
<tr>
<td>PCOS - Endocrine Disrupters</td>
<td>8</td>
</tr>
<tr>
<td>PCOS - Etiology and Animal Models</td>
<td>8</td>
</tr>
<tr>
<td>PCOS - General Health Concerns</td>
<td>11</td>
</tr>
<tr>
<td>PCOS - Genetics</td>
<td>12</td>
</tr>
<tr>
<td>PCOS - Immunological Considerations</td>
<td>14</td>
</tr>
<tr>
<td>PCOS - After the Menopause</td>
<td>14</td>
</tr>
<tr>
<td>PCOS - Metabolic Dysfunction/Cardiovascular Disease/Inflammation</td>
<td>14</td>
</tr>
<tr>
<td>PCOS - Neuroendocrine Dysfunction</td>
<td>22</td>
</tr>
<tr>
<td>PCOS - Ovary</td>
<td>22</td>
</tr>
<tr>
<td>PCOS - Phenotypic Variation</td>
<td>26</td>
</tr>
<tr>
<td>PCOS - Pregnancy Complications</td>
<td>27</td>
</tr>
<tr>
<td>PCOS - Protocol Reviews</td>
<td>28</td>
</tr>
<tr>
<td>PCOS - Psychology</td>
<td>28</td>
</tr>
<tr>
<td>PCOS - Thyroid Complications</td>
<td>29</td>
</tr>
<tr>
<td>PCOS - Uterus</td>
<td>29</td>
</tr>
<tr>
<td>Premature Adrenarche</td>
<td>29</td>
</tr>
</tbody>
</table>
ANDROGEN EXCESS AND PCOS SOCIETY

Brief overviews of selected publications

**Congenital Adrenal Hyperplasia and Disorders of Steroidogenesis**

**Combined comment:**


**PCOS – Metabolic Dysfunction/Cardiovascular Disease/Inflammation**


**PCOS – Ovary**

Palomba S, Falbo A, La Sala GB. Effects of metformin in women with polycystic ovary syndrome treated with gonadotrophins for in vitro fertilisation and intracytoplasmic sperm injection cycles: a systematic review and meta-analysis of randomised controlled trials. BJOG. 2013 Feb;120(3):267-76
ANDROGEN EXCESS AND PCOS SOCIETY

List of Publications

**Congenital Adrenal Hyperplasia and Disorders of Steroidogenesis**


ANDROGEN EXCESS AND PCOS SOCIETY


van der Zwan YG, Janssen EH, Callens N, Wolffsenbuttel KP, Cohen-Kettenis PT, van den Berg M, Drop SL, Dessens AB, Beerendonk C; Dutch Study Group on DSD. Severity of virilization is associated with cosmetic


**Steroidogenesis**


ANDROGEN EXCESS AND
PCOS SOCIETY

Polycystic ovary syndrome (PCOS)

PCOS – Adolescence


PCOS – Dermatology and Body Hair Complications


PCOS – Endocrine Disrupters


PCOS – Etiology and Animal Models

ANDROGEN EXCESS AND PCOS SOCIETY


ANDROGEN EXCESS AND PCOS SOCIETY


PCOS – General Health Concerns


ANDROGEN EXCESS AND PCOS SOCIETY


PCOS – Genetics


**PCOS – Immunological Considerations**

None.

**PCOS – After the Menopause**

None.

**PCOS – Metabolic Dysfunction/Cardiovascular Disease/Inflammation**

Abali R, Celik C, Tasdemir N, Guzel S, Alpsoy S, Yuksel A, Celik E. The serum protein α2-Heremans-Schmid glycoprotein/fetuin-a concentration and carotid intima-media thickness in women with polycystic ovary
ANDROGEN EXCESS AND PCOS SOCIETY


Cakir E, Doğan M, Topaloglu O, Ozbek M, Cakal E, Vural MG, Yeter E, Delibasi T. Subclinical atherosclerosis and hyperandrogenemia are independent risk factors for increased epicardial fat thickness in patients with


ANDROGEN EXCESS AND PCOS SOCIETY


ANDROGEN EXCESS AND PCOS SOCIETY


ANDROGEN EXCESS AND PCOS SOCIETY


PCOS – Neuroendocrine Dysfunction

None.

PCOS – Ovary


ANDROGEN EXCESS AND PCOS SOCIETY


Guzman L, Adriaenssens T, Ortega-Hrepich C, Albuz FK, Mateizel I, Devroey P, De Vos M, Smitz J. Human antral follicles <6 mm: a comparison between in vivo maturation and in vitro maturation in non-hCG primed


Misso ML, Costello MF, Garrubba M, Wong J, Hart R, Rombauts L, Melder AM, Norman RJ, Teede HJ. Metformin versus clomiphene citrate for infertility in non-obese women with polycystic ovary syndrome: a


ANDROGEN EXCESS AND PCOS SOCIETY

PCOS – Phenotypic Variation


ANDROGEN EXCESS AND PCOS SOCIETY

PCOS – Pregnancy Complications


ANDROGEN EXCESS AND PCOS SOCIETY


PCOS – Protocol Reviews

None.

PCOS – Psychology


ANDROGEN EXCESS AND PCOS SOCIETY


PCOS – Thyroid Complications


PCOS – Uterus


Premature Adrenarche


DeSalvo DJ, Mehra R, Vaidyanathan P, Kaplowitz PB. In children with premature adrenarche, bone age advancement by 2 or more years is common and generally benign. J Pediatr Endocrinol Metab. 2013;26(3-4):215-21
ANDROGEN EXCESS AND PCOS SOCIETY


Brief summaries of selected publications

Congenital Adrenal Hyperplasia and Disorders of Steroidogenesis

Comment:


Congenital adrenal hyperplasia (CAH) is an autosomal recessive disorder that requires life-long contact with health care professionals. The challenges of organizing and ensuing successful transitions for patients from pediatric to adult care are increasingly recognized. A recent study in the UK [Arlt W, et al., Health status of adults with congenital adrenal hyperplasia: a cohort study of 203 patients. United Kingdom Congenital Adrenal Hyperplasia Adult Study Executive (CaHASE). J Clin Endocrinol Metab. 2010;95:5110-21] suggested that most adult patients with CAH are not seeking or receiving medical services. Gleeson and colleagues [refs #1 and 2 in this section] provide information on 53 patients (57% women) with CAH from a single center in the UK. The subjects were aged 17-20 years at the time of transition. In this audit, Gleeson et al [ref #1, 2 in this section] noted that 50% of patients with CAH had poor biochemical control and/or adverse clinical consequences. Further, 50% of those transferred to an adult specialist were lost of follow-up. Glitches in the process of transferring care from pediatric to adult health care providers negatively impacts medical care, decreases quality of life, and increases risks for potentially avoidable consequences of CAH. Krone and colleagues [ref #3 in this section] concluded that the patient’s genotype did not correlate well with the current health status. Rather steroid dose and health provision were the major factors influencing current health status. These papers emphasize the relevance and importance of adequate planning for transition of emerging adults with chronic health disorders to adult care.

PCOS – Metabolic Dysfunction/Cardiovascular Disease/Inflammation


These authors questioned whether there is an additional risk among women with polycystic ovary syndrome. They thus developed a population-based cohort from the IMS LifeLink Health Plan Claims Database which includes managed care organizations in the United States. Women aged 18-46 years taking combined oral
contraceptives and who had a diagnosis of PCOS (n = 43,506) were matched, based on a propensity score, to control women (n = 43,506) taking oral contraceptives. The definition of venous thromboembolism was based on administrative coding and use of anticoagulation and Cox proportional hazards model was used to assess the relative risk. The incidence of venous thromboembolism among women with PCOS was 23.7/10,000 person-years, while that for matched controls was 10.9/10,000 person-years. Women with PCOS taking combined oral contraceptives had an RR for venous thromboembolism of 2.14 (95% confidence interval [CI] 1.41-3.24) compared with other contraceptive users. The incidence of venous thromboembolism was 6.3/10,000 person-years among women with PCOS not taking oral contraceptives; the incidence was 4.1/10,000 person-years among matched controls. The RR of venous thromboembolism among women with PCOS not taking oral contraceptives was 1.55 (95% CI 1.10-2.19). They concluded that there was a 2-fold increased risk of venous thromboembolism among women with PCOS who were taking combined oral contraceptives and a 1.5-fold increased risk among women with PCOS not taking oral contraceptives.

PCOS – Ovary

Palomba S, Falbo A, La Sala GB. Effects of metformin in women with polycystic ovary syndrome treated with gonadotrophins for in vitro fertilisation and intracytoplasmic sperm injection cycles: a systematic review and meta-analysis of randomised controlled trials. BJOG. 2013 Feb;120(3):267-76.

This metaanalysis by Palomba et al provides more insight, and produces more questions, on the effects of metformin treatment when providing IVF care to infertile PCOS patients. The metaanalysis contained 10 RCTs, significantly more than previous metanalyses, resulting in a total of over 900 subjects. They confirm previous findings of significantly lower OHSS rates with metformin treatment. Of greater interest, however, are higher embryo implantation rates and lower miscarriage rates when metformin is used, particularly with standard dosing and when given long-term. Live birth rates are not different with metformin administration. When the authors removed one study from the analysis, however, specifically evaluating PCOS patients with diminished ovarian reserve, metformin treatment increased the live birth rate. Clinicians are increasingly using metformin in PCOS patients undergoing IVF. This treatment certainly requires more study to confirm its benefit.