

**AE & PCOS
QUARTERLY PUBLICATION LIST
JULY- SEPT 2015**

Highlighted articles

Kauffman AS, Thackray VG, Ryan GE, Tolson KP, Glidewell-Kenney CA, Semaan SJ, Poling MC, Iwata N, Breen KM, Duleba AJ, Stener-Victorin E, Shimasaki S, Webster NJ, Mellon PL. A Novel Letrozole Model Recapitulates Both the Reproductive and Metabolic Phenotypes of Polycystic Ovary Syndrome in Female Mice. Biol Reprod. 2015 Sep;93(3):69.

Rodent models of PCOS commonly do not fully recapitulate the complexity of the human disorder. Recently, a PCOS rat model using letrozole (LET), a nonsteroidal aromatase inhibitor, was shown to exhibit multiple PCOS phenotypes, including metabolic features absent in other rodent models. Given the advantages of using genetic and transgenic mouse models, this study explored whether LET could produce a similar PCOS phenotype in mice. Pubertal female C57BL/6N mice were treated for 5 wk with LET (at about 2 mg/kg/day), which resulted in increased serum testosterone and normal diestrus levels of estradiol, similar to the hyperandrogenemia and follicular phase estrogen levels of PCOS women. As in PCOS, ovaries from LET mice were larger, polycystic, and lacked corpora lutea versus controls. Most LET females were acyclic, and all were infertile. LET females displayed high serum levels of LH and higher LHb mRNA in the pituitary. In contrast, serum FSH and FSHb were reduced in LET females, demonstrating differential effects on gonadotropins, as in PCOS. Within the ovary, LET females had higher CYP17, CYP19, and FSH receptor mRNA expression. In the hypothalamus, LET females had higher kisspeptin receptor mRNA expression, but lower progesterone receptor mRNA levels. LET females also gained more weight than controls, had increased abdominal adiposity and adipocyte size, elevated adipose inflammatory mRNA levels, and impaired glucose tolerance, mirroring the metabolic phenotype in PCOS women. This is the first report of a LET paradigm in mice that recapitulates both reproductive and metabolic PCOS phenotypes. One issue with such LET models, however, is the absence of obvious aromatase deficiency in PCOS women. For example, highly successful first line treatments for ovulation induction in PCOS now increasingly use LET to induce endogenous gonadotropin stimulation of ovarian follicle growth commonly resulting in pre-ovulatory estradiol stimulation of an LH surge and ovulation enabling subsequent pregnancy. Further, elevated endometrial aromatase and over-exposure to estradiol are linked to endometrial hyperplasia in PCOS. So, while LET animal models are useful for understanding reproductive endocrine and metabolic complications of estrogen deficient conditions, their relevance to PCOS is unclear.(DA)

Legro RS, Dodson WC, Kris-Etherton PM, Kunselman AR, Stetter CM, Williams NI, Gnatuk CL, Estes SJ, Fleming J, Allison KC, Sarwer DB, Coutifaris C, Dokras A. Randomized Controlled Trial of Preconception Interventions in Infertile Women With Polycystic Ovary Syndrome. J Clin Endocrinol Metab. 2015Nov;100(11):4048-58. doi: 10.1210/jc.2015-2778. Epub 2015 Sep 24. PubMed PMID:26401593.

There is a general consensus that weight loss in PCOS improves ovulation, pregnancy rate and live birth, but the ability to show this in randomized clinical trials has been difficult. Most trials have been significantly underpowered for live birth rates. In this large RCT, Dr. Legro and colleagues compared an intensive weight loss regimen with lifestyle modification combined with medications for weight loss if indicated to a short course of oral contraceptives alone or in combination with the weight loss regimen for the impact on ovulation and pregnancy rates in overweight or obese women with PCOS. They randomized 159 women and achieved a little more than 6% weight reduction in the combined group and the weight loss only group. Cumulative ovulation rates were superior after weight loss: OCP, 46%; Lifestyle, 60%; and Combined, 67% (P < .05). Live birth rates trended toward higher rates

in the weight loss groups compared to the OCP, but there was no difference between the combined and weight loss only group: OCP, 12%; Lifestyle, 26%; and Combined, 24% ($P = .13$). While the study had to be terminated early by the DSMB because of the similarity in live birth rates in the two groups which achieved weight loss, as a value of information analysis supported that additional study would not lead to the ability to detect the difference the authors previously hypothesized, the authors noted “the study can be viewed as an important and innovative investigation that follows a group of infertile women to delivery and provides a model for future studies on this critical life transition. This publication supports the prior evidence from non-randomized trials that weight loss prior to conception improves the ovulatory rate and does not hinder the ability to achieve a pregnancy. In fact there was significant metabolic benefit seen in the weight loss groups and a detriment in the group assigned only to OCP, further supporting recommendations for lifestyle modification even if using OCP for cycle control in overweight or obese women with PCOS. Additional study is needed to see if pre-pregnancy weight reduction can be maintained during pregnancy and improve pregnancy complications that are associated with pregnancy in PCOS women. (KH)

Shim U, Kim HN, Lee H, Oh JY, Sung YA, Kim HL. Pathway Analysis Based on a Genome-Wide Association Study of Polycystic Ovary Syndrome. *PLoS One*. 2015 Aug 26;10(8):e0136609. doi: 10.1371/journal.pone.0136609. eCollection 2015. PMID: 26308735. The genetic component of polycystic ovary syndrome (PCOS) is evident, but studies aiming to identify associated genes have shown controversial results. The authors used a dataset obtained through a previous genome-wide association study (GWAS), to elucidate the biological pathways that contribute to PCOS susceptibility and the associated genes. The GWAS data included 636,797 autosomal single nucleotide polymorphisms (SNPs) from 1,221 Korean women (432 PCOS patients and 789 controls). A meta-analysis gene-set enrichment of variant associations (MAGENTA) identified biological pathways or gene sets associated with PCOS. MAGENTA implements gene-set enrichment analysis (GSEA) associated with GWAS data. Top-ranking pathways or gene sets associated with PCOS were identified, and significant genes within the pathways were analyzed. GWAS dataset identified significant pathways related to oocyte meiosis and the regulation of insulin secretion by acetylcholine (ACh) and free fatty acids (FFAs). The significant genes involved in the pathway of oocyte meiosis were *SMC3* (structural maintenance of chromosome 3), *CCNE2* (cyclin E2), *PPP2R5D* (protein phosphatase 2, regulatory subunit B, delta), *INS* (insulin), *PPP2R5C* (protein phosphatase 2, regulatory subunit B, gamma), *PLCZ1* (phospholipase C, zeta 1), *PPP2R5A* (protein phosphatase 2, regulatory subunit B, alpha), *PPP1CB* (protein phosphatase 1, catalytic subunit, beta isozyme) and *SPDYA* (speedy/RINGO cell cycle regulator family member A). In addition, *INS*, *STXBP1* (syntaxin binding protein 1), *PLCB3* (phospholipase C, beta 3), *GNAQ* (guanine nucleotide binding protein, q polypeptide) and *PLCB2* (phospholipase C, beta 2) were identified in the pathways related to the regulation of insulin secretion by ACh and the regulation of insulin secretion by FFAs. They identified pathways and candidate genes involved in PCOS. These findings may provide new insight for understanding the mechanisms underlying the development of PCOS. However, there are some limitations of this study: 1) the number of women with PCOS included in the GWAS dataset is small; 2) most of the genes are partially unknown, and their biological function still needs to be established; 3) the study is confined to one ethnic group and different phenotypes of PCOS are seen in women with different ethnic backgrounds, so the results may not be generalizable to other ethnic groups. (CM)

List of Publications

Publications were searched in PubMed with primary search criteria congenital adrenal hyperplasia, premature adrenarche or PCOS with secondary subcategory, inclusive of the quarter dates. Every attempt was made to include all papers in English in these categories but may not be an exhaustive list. If a related paper was published in this quarter and not listed below, please notify the Publications Committee so that it may be include in an upcoming Quarterly Review.

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Congenital Adrenal Hyperplasia and Disorders of Steroidogenesis

Alqahtani MA, Shati AA, Zou M, Alsuheel AM, Alhayani AA, Al-Qahtani SM, Gilban HM, Meyer BF, Shi Y. A Novel Mutation in the CYP11B1 Gene Causes Steroid 11 β -Hydroxylase Deficient Congenital Adrenal Hyperplasia with Reversible Cardiomyopathy. *Int J Endocrinol*. 2015;2015:595164.

Ambroziak U, Kępczyńska-Nyk A, Kuryłowicz A, Małunowicz EM, Wójcicka A, Miśkiewicz P, Macech M. The diagnosis of nonclassic congenital adrenal hyperplasia due to 21-hydroxylase deficiency, based on serum basal or post-ACTH stimulation 17-hydroxyprogesterone, can lead to false-positive diagnosis. *Clin Endocrinol (Oxf)*. 2015 Aug 31. doi: 10.1111/cen.12935. [Epub ahead of print]

Bachelot A, Golmard JL, Dulon J, Dahmoune N, Leban M, Bouvattier C, Cabrol S, Leger J, Polak M, Touraine P. Determining clinical and biological indicators for health outcomes in adult patients with childhood onset of congenital adrenal hyperplasia. *Eur J Endocrinol*. 2015 Aug;173(2):175-84.

Benkert AR, Young M, Robinson D, Hendrickson C, Lee PA, Strauss KA. Severe Salt-Losing 3 β -Hydroxysteroid Dehydrogenase Deficiency: Treatment and Outcomes of HSD3B2 c.35G>A Homozygotes. *J Clin Endocrinol Metab*. 2015 Aug;100(8):E1105-15.

Bloem LM, Storbeck KH, Swart P, du Toit T, Schloms L, Swart AC. Advances in the analytical methodologies: Profiling steroids in familiar pathways-challenging dogmas. *J Steroid Biochem Mol Biol*. 2015 Sep;153:80-92.

- Chan LF, Campbell DC, Novoselova TV, Clark AJ, Metherell LA. Whole-Exome Sequencing in the Differential Diagnosis of Primary Adrenal Insufficiency in Children. *Front Endocrinol (Lausanne)*. 2015 Aug 5;6:113.
- Chandeying P, Pantasri T. Prevalence of conditions causing chronic anovulation and the proposed algorithm for anovulation evaluation. *J Obstet Gynaecol Res*. 2015 Jul;41(7):1074-9.
- Eugster EA. The Use of Gonadotropin-Releasing Hormone Analogs beyond Precocious Puberty. *J Pediatr*. 2015 Aug;167(2):481-5.
- Falhammar H, Frisén L, Hirschberg AL, Norrby C, Almqvist C, Nordenskjöld A, Nordenström A. Increased Cardiovascular and Metabolic Morbidity in Patients With 21-Hydroxylase Deficiency: A Swedish Population-Based National Cohort Study. *J Clin Endocrinol Metab*. 2015 Sep;100(9):3520-8.
- Falhammar H, Nordenström A. Nonclassic congenital adrenal hyperplasia due to 21-hydroxylase deficiency: clinical presentation, diagnosis, treatment, and outcome. *Endocrine*. 2015 Sep;50(1):32-50.
- Fernández CS, Bruque CD, Taboas M, Buzzalino ND, Espeche LD, Pasqualini T, Charreau EH, Alba LG, Ghiringhelli PD, Dain L. Misregulation effect of a novel allelic variant in the Z promoter region found in cis with the CYP21A2 p.P482S mutation: implications for 21-hydroxylase deficiency. *Endocrine*. 2015 Sep;50(1):72-8.
- Forouzanfar K, Seifi M, Hashemi-Gorji F, Karimi N, Estiar MA, Karimoei M, Sakhinia E, Karimipour M, Ghergherehchi R. Mutation analysis of the CYP21A2 gene in congenital adrenal hyperplasia. *Cell Mol Biol (Noisy-le-grand)*. 2015 Aug 17;61(4):51-5.
- Ganesh R, Suresh N, Janakiraman L, Ravikumar K. CYP21A2 gene mutation in South Indian children with congenital adrenal hyperplasia. *Indian Pediatr*. 2015 Aug;52(8):710-1.
- Hong G, Park HD, Choi R, Jin DK, Kim JH, Ki CS, Lee SY, Song J, Kim JW. CYP21A2 mutation analysis in Korean patients with congenital adrenal hyperplasia using complementary methods: sequencing after long-range PCR and restriction fragment length polymorphism analysis with multiple ligation-dependent probe amplification assay. *Ann Lab Med*. 2015 Sep;35(5):535-9.
- Kale G, Pelley EM, Davis DB. Giant myelolipomas and inadvertent bilateral adrenalectomy in classic congenital adrenal hyperplasia. *Endocrinol Diabetes Metab Case Rep*. 2015;2015:150079.
- Kaplowitz PB, Mehra R. Clinical characteristics of children referred for signs of early puberty before age 3. *J Pediatr Endocrinol Metab*. 2015 Sep;28(9-10):1139-44.
- Kaur G, Thakur K, Kataria S, Singh TR, Chavan BS, Kaur G, Atwal R. Current and future perspective of newborn screening: an Indian scenario. *J Pediatr Endocrinol Metab*. 2015 Jul 18. pii: /j/jpem.ahead-of-print/jpem-2015-0009/jpem-2015-0009.xml.
- Keskin M, Uğurlu AK, Savaş-Erdeve Ş, Sağsak E, Akyüz SG, Çetinkaya S, Aycan Z. 17 α -Hydroxylase/17,20-lyase deficiency related to P.Y27*(c.81C>A) mutation in CYP17A1 gene. *J Pediatr Endocrinol Metab*. 2015 Jul;28(7-8):919-21.
- Khattab A, Yuen T, Al-Malki S, Yau M, Kazmi D, Sun L, Harbison M, Haider S, Zaidi M, New MI. A rare CYP21A2 mutation in a congenital adrenal hyperplasia kindred displaying genotype-phenotype nonconcordance. *Ann N Y Acad Sci*. 2015 Aug 20.
- Kiedrowicz B, Binczak-Kuleta A, Lubikowski J, Koziolok M, Andrysiak-Mamos E, Ostanek-Panka M, Ciechanowicz A, Syrenicz A. Prevalence and Clinical Outcome of CYP21A2 Gene Mutations in Patients with Nonfunctional Adrenal Incidentalomas. *Horm Metab Res*. 2015 Aug;47(9):662-7.
- Kim MS, Ryabets-Lienhard A, Dao-Tran A, Mittelman SD, Gilsanz V, Schragger SM, Geffner ME. Increased Abdominal Adiposity in Adolescents and Young Adults With Classical Congenital Adrenal Hyperplasia due to 21-Hydroxylase Deficiency. *J Clin Endocrinol Metab*. 2015 Aug;100(8):E1153-9.

- Kok HK, Sherlock M, Healy NA, Doody O, Govender P, Torreggiani WC. Imaging features of poorly controlled congenital adrenal hyperplasia in adults. *Br J Radiol*. 2015 Sep;88(1053):20150352.
- Kolahdouz M, Mohammadi Z, Kolahdouz P, Tajamolian M, Khanahmad H. Pitfalls in molecular diagnosis of 21-hydroxylase deficiency in congenital adrenal hyperplasia. *Adv Biomed Res*. 2015 Aug 31;4:189.
- Larrandaburu M, Matte U, Noble A, Olivera Z, Sanseverino MT, Nacul L, Schuler-Faccini L. Ethics, genetics and public policies in Uruguay: newborn and infant screening as a paradigm. *J Community Genet*. 2015 Jul;6(3):241-9. doi: 10.1007/s12687-015-0236-2.
- Lavin LR, Higby N, Abramo T. Newborn Screening: What Does the Emergency Physician Need to Know? *Pediatr Emerg Care*. 2015 Sep;31(9):661-7; quiz 667-9.
- Lee SJ, Song JE, Hwang S, Lee JY, Park HS, Han S, Rhee Y. Untreated Congenital Adrenal Hyperplasia with 17- α Hydroxylase/17,20-Lyase Deficiency Presenting as Massive Adrenocortical Tumor. *Endocrinol Metab (Seoul)*. 2015 Sep;30(3):408-13.
- Li Y, Fang Y, Liu Y, Yang X. MicroRNAs in ovarian function and disorders. *J Ovarian Res*. 2015 Aug 1;8:51.
- Lin JC, Hu S, Ho PH, Hsu HJ, Postlethwait JH, Chung BC. Two Zebrafish *hsd3b* Genes Are Distinct in Function, Expression, and Evolution. *Endocrinology*. 2015 Aug;156(8):2854-62.
- Marakaki C, Papadopoulou A, Karapanou O, Papadimitriou DT, Kleanthous K, Papadimitriou A. A Greek girl with 11 β -hydroxylase deficiency due to compound heterozygosity for two novel mutations in CYP11B1 gene. *Endocrinol Diabetes Metab Case Rep*. 2015;2015:150074.
- Mass Screening Committee; Japanese Society for Pediatric Endocrinology; Japanese Society for Mass Screening, Ishii T, Anzo M, Adachi M, Onigata K, Kusuda S, Nagasaki K, Harada S, Horikawa R, Minagawa M, Minamitani K, Mizuno H, Yamakami Y, Fukushima M, Tajima T. Guidelines for diagnosis and treatment of 21-hydroxylase deficiency (2014 revision). *Clin Pediatr Endocrinol*. 2015 Jul;24(3):77-105.
- Menabò S, Boccassini S, Gambineri A, Balsamo A, Pasquali R, Prontera O, Mazzanti L, Baldazzi L. Improving the diagnosis of 11 β -hydroxylase deficiency using home-made MLPA probes: identification of a novel chimeric CYP11B2/CYP11B1 gene in a Sicilian patient. *J Endocrinol Invest*. 2015 Aug 18. [Epub ahead of print]
- Monostori P, Szabó P, Marginean O, Bereczki C, Karg E. Concurrent Confirmation and Differential Diagnosis of Congenital Adrenal Hyperplasia from Dried Blood Spots: Application of a Second-Tier LC-MS/MS Assay in a Cross-Border Cooperation for Newborn Screening. *Horm Res Paediatr*. 2015;84(5):311-8.
- Morissette R, Chen W, Perritt AF, Dreiling JL, Arai AE, Sachdev V, Hannoush H, Mallappa A, Xu Z, McDonnell NB, Quezado M, Merke DP. Broadening the Spectrum of Ehlers Danlos Syndrome in Patients With Congenital Adrenal Hyperplasia. *J Clin Endocrinol Metab*. 2015 Aug;100(8):E1143-52.
- Nguyen TP, Nguyen TH, Ngo DN, Vu CD, Nguyen TK, Nong VH, Nguyen HH. A novel homozygous mutation IVS6+5G>T in CYP11B1 gene in a Vietnamese patient with 11 β -hydroxylase deficiency. *Gene*. 2015 Jul 10;565(2):291-4.
- Niranjan U, Natarajan A. Congenital adrenal hyperplasia in children--a survey on the current practice in the UK. *J Pediatr Endocrinol Metab*. 2015 Jul;28(7-8):847-51.
- Odenwald B, Dörr HG, Bonfig W, Schmidt H, Fingerhut R, Wildner M, Nennstiel-Ratzel U. Classic Congenital Adrenal Hyperplasia due to 21-Hydroxylase-Deficiency: 13 Years of Neonatal Screening and Follow-up in Bavaria. *Klin Padiatr*. 2015 Sep;227(5):278-83.

- Pallan PS, Lei L, Wang C, Waterman MR, Guengerich FP, Egli M. Research Resource: Correlating Human Cytochrome P450 21A2 Crystal Structure and Phenotypes of Mutations in Congenital Adrenal Hyperplasia. *Mol Endocrinol*. 2015 Sep;29(9):1375-84.
- Pasterski V, Zucker KJ, Hindmarsh PC, Hughes IA, Acerini C, Spencer D, Neufeld S, Hines M. Increased Cross-Gender Identification Independent of Gender Role Behavior in Girls with Congenital Adrenal Hyperplasia: Results from a Standardized Assessment of 4- to 11-Year-Old Children. *Arch Sex Behav*. 2015 Jul;44(5):1363-75.
- Patrova J, Jarocka I, Wahrenberg H, Falhammar H. Clinical Outcomes In Adrenal Incidentaloma: Experience From One Center. *Endocr Pract*. 2015 Aug;21(8):870-7.
- Rizwan A, Hayat M. Unusual presentation with polymenorrhagia and markedly high 17-hydroxy progesterone levels in a lady with Non-Classic Congenital Adrenal Hyperplasia. *J Pak Med Assoc*. 2015 Aug;65(8):889-91.
- Sahin SB, Durakoglugil T, Ayaz T, Sahin OZ, Durakoglugil E, Sumer F, Aktas E, Alyildiz N. Evaluation Of Para- And Perirenal Fat Thickness And Its Association With Metabolic Disorders In Polycystic Ovary Syndrome. *Endocr Pract*. 2015 Aug;21(8):878-86.
- Sani I, Rossodivita AN, Mariani M, Costella A, Molinario R, Concolino P, Capoluongo E. CYP21A2 genetics: When genotype does not fit phenotype. *Clin Biochem*. 2015 Jul 21. pii: S0009-9120(15)00302-1.
- Serter A, Alkan A, Demirkol D. Diffusion MRI features of acute encephalopathy due to stopping steroid medication abruptly in congenital adrenal hyperplasia. *Ann Indian Acad Neurol*. 2015 Jul-Sep;18(3):342-4.
- Sheikh Alshabab LI, Alebrahm A, Kaddoura A, Al-Fahoum S. Congenital adrenal hyperplasia due to 21-hydroxylase deficiency: A five-year retrospective study in the Children's Hospital of Damascus, Syria. *Qatar Med J*. 2015 Jul 31;2015(1):11.
- Speiser PW. Congenital Adrenal Hyperplasia. *F1000Res*. 2015 Aug 20;4(F1000 Faculty Rev):601.
- Storbeck KH, Swart AC, Fox CL, Swart P. Cytochrome b5 modulates multiple reactions in steroidogenesis by diverse mechanisms. *J Steroid Biochem Mol Biol*. 2015 Jul;151:66-73.
- Turcu AF, Auchus RJ. The next 150 years of congenital adrenal hyperplasia. *J Steroid Biochem Mol Biol*. 2015 Sep;153:63-71.
- Wang X, Nie M, Lu L, Tong A, Chen S, Lu Z. Identification of seven novel CYP11B1 gene mutations in Chinese patients with 11 β -hydroxylase deficiency. *Steroids*. 2015 Aug;100:11-6.
- Wherrett DK. Approach to the Infant with a Suspected Disorder of Sex Development. *Pediatr Clin North Am*. 2015 Aug;62(4):983-99.
- Wieacker I, Peter M, Borucki K, Empting S, Roehl FW, Mohnike K. Therapy monitoring in congenital adrenal hyperplasia by dried blood samples. *J Pediatr Endocrinol Metab*. 2015 Jul;28(7-8):867-71.
- Xu L, Xia W, Wu X, Wang X, Zhao L, Nie M. Chimeric CYP11B2/CYP11B1 causing 11 β -hydroxylase deficiency in Chinese patients with congenital adrenal hyperplasia. *Steroids*. 2015 Sep;101:51-5.
- Yadav S, Birla S, Marumudi E, Sharma A, Khadgawat R, Khurana ML, Ammini AC. Clinical profile and inheritance pattern of CYP21A2 gene mutations in patients with classical congenital adrenal hyperplasia from 10 families. *Indian J Endocrinol Metab*. 2015 Sep-Oct;19(5):644-8.
- Yau M, Vogiatzi M, Lewkowitz-Shpuntoff A, Nimkarn S, Lin-Su K. Health-Related Quality of Life in Children with Congenital Adrenal Hyperplasia. *Horm Res Paediatr*. 2015;84(3):165-71.
- Zennaro MC, Boulkroun S, Fernandes-Rosa F. Inherited forms of mineralocorticoid hypertension. *Best Pract Res Clin Endocrinol Metab*. 2015 Aug;29(4):633-45.

Zhong K, Wang W, He F, Wang Z. The status of neonatal screening in China, 2013. *J Med Screen*. 2015 Aug 3. pii: 0969141315597715. [Epub ahead of print]

Premature Adrenarche

Bartz SK, Karaviti LP, Brandt ML, Lopez ME, Masand P, Devaraj S, Hicks J, Anderson L, Lodish M, Keil M, Stratakis CA. Residual manifestations of hypercortisolemia following surgical treatment in a patient with Cushing syndrome. *Int J Pediatr Endocrinol*. 2015;2015(1):19. doi: 10.1186/s13633-015-0014-2. Epub 2015 Aug 26. PubMed PMID: 26322079; PubMed Central PMCID: PMC4551381.

de Melo AS, Dias SV, Cavalli Rde C, Cardoso VC, Bettiol H, Barbieri MA, Ferriani RA, Vieira CS. Pathogenesis of polycystic ovary syndrome: multifactorial assessment from the foetal stage to menopause. *Reproduction*. 2015 Jul;150(1):R11-24. doi: 10.1530/REP-14-0499. Epub 2015 Apr 2. Review. PubMed PMID: 25835506.

PCOS - Adolescence

Al Khalifah RA, Flórez ID, Dennis B, Neupane B, Thabane L, Bassilious E. The effectiveness and safety of treatments used for polycystic ovarian syndrome management in adolescents: a systematic review and network meta-analysis protocol. *Syst Rev*. 2015 Sep 23;4:125. doi: 10.1186/s13643-015-0105-4. PubMed PMID: 26420636; PubMed Central PMCID: PMC4589072.

Al-Zubeidi H, Klein KO. Randomized clinical trial evaluating metformin versus oral contraceptive pills in the treatment of adolescents with polycystic ovarian syndrome. *J Pediatr Endocrinol Metab*. 2015 Jul;28(7-8):853-8. doi: 10.1515/jpem-2014-0283. PubMed PMID: 25781525.

Aydin Y, Hassa H, Burkankulu D, Arslantas D, Sayiner D, Ozerdogan N. What is the Risk of Metabolic Syndrome in Adolescents with Normal BMI who have Polycystic Ovary Syndrome? *J Pediatr Adolesc Gynecol*. 2015 Aug;28(4):271-4. doi: 10.1016/j.jpag.2014.08.011. Epub 2014 Aug 29. PubMed PMID: 26049937.

Brosens I, Benagiano G. Menstrual preconditioning for the prevention of major obstetrical syndromes in polycystic ovary syndrome. *Am J Obstet Gynecol*. 2015 Oct;213(4):488-93. doi: 10.1016/j.ajog.2015.07.021. Epub 2015 Jul 26. Review. PubMed PMID: 26212182.

Deligeoroglou EK, Creatas GK. Dysfunctional uterine bleeding as an early sign of polycystic ovary syndrome during adolescence. *Minerva Ginecol*. 2015 Aug;67(4):375-81. Epub 2015 Jun 9. PubMed PMID: 26054370.

Fruzzetti F, Campagna AM, Perini D, Carmina E. Ovarian volume in normal and hyperandrogenic adolescent women. *Fertil Steril*. 2015 Jul;104(1):196-9. doi: 10.1016/j.fertnstert.2015.03.026. Epub 2015 Apr 29. PubMed PMID: 25934594.

Gourgari E, Lodish M, Shamburek R, Keil M, Wesley R, Walter M, Sampson M, Bernstein S, Khurana D, Lyssikatos C, Ten S, Dobs A, Remaley AT, Stratakis CA. Lipoprotein Particles in Adolescents and Young Women With PCOS Provide Insights Into Their Cardiovascular Risk. *J Clin Endocrinol Metab*. 2015 Nov;100(11):4291-8. doi: 10.1210/jc.2015-2566. Epub 2015 Sep 15. PubMed PMID: 26371381.

Greenwood EA, Pasch LA, Shinkai K, Cedars MI, Huddleston HG. Putative role for insulin resistance in depression risk in polycystic ovary syndrome. *Fertil Steril*. 2015 Sep;104(3):707-14.e1. doi: 10.1016/j.fertnstert.2015.05.019. Epub 2015 Jun 19. PubMed PMID: 26054555.

Gümüş Ü, Güzel AI, Topcu HO, Timur H, Yılmaz N, Danişman N. Plasma Visfatin Levels in Adolescents with Polycystic Ovary Syndrome: A Prospective Case-Control Study. *J Pediatr Adolesc Gynecol*. 2015 Aug;28(4):249-53. doi: 10.1016/j.jpag.2014.08.007. Epub 2014 Aug 17. PubMed PMID: 26049941.

- Javed A, Kumar S, Simmons PS, Lteif AN. Phenotypic Characterization of Polycystic Ovary Syndrome in Adolescents Based on Menstrual Irregularity. *Horm Res Paediatr.* 2015;84(4):223-30. doi: 10.1159/000435883. Epub 2015 Jul 16. PubMed PMID: 26184981.
- Kamangar F, Okhovat JP, Schmidt T, Beshay A, Pasch L, Cedars MI, Huddleston H, Shinkai K. Polycystic Ovary Syndrome: Special Diagnostic and Therapeutic Considerations for Children. *Pediatr Dermatol.* 2015 Sep-Oct;32(5):571-8. doi: 10.1111/pde.12566. Epub 2015 Mar 19. PubMed PMID: 25787290.
- Kenigsberg LE, Agarwal C, Sin S, Shifteh K, Isasi CR, Crespi R, Ivanova J, Coupey SM, Heptulla RA, Arens R. Clinical utility of magnetic resonance imaging and ultrasonography for diagnosis of polycystic ovary syndrome in adolescent girls. *Fertil Steril.* 2015 Nov;104(5):1302-1309.e4. doi: 10.1016/j.fertnstert.2015.08.002. Epub 2015 Sep 3. PubMed PMID: 26354095; PubMed Central PMCID: PMC4630153.
- Lanzo E, Monge M, Trent M. Diagnosis and Management of Polycystic Ovary Syndrome in Adolescent Girls. *Pediatr Ann.* 2015 Sep 1;44(9):e223-30. doi: 10.3928/00904481-20150910-10. PubMed PMID: 26431241.
- Li HW, Lam KS, Tam S, Lee VC, Yeung TW, Cheung PT, Yeung WS, Ho PC, Ng EH. Screening for dysglycaemia by oral glucose tolerance test should be recommended in all women with polycystic ovary syndrome. *Hum Reprod.* 2015 Sep;30(9):2178-83. doi: 10.1093/humrep/dev166. Epub 2015 Jul 22. PubMed PMID: 26202923.
- Ohlsson Gotby A, Nordenström A, Falhammar H, Nordenskjöld A, Linden Hirschberg A, Frisén L, Landén M, Lichtenstein P. Congenital Adrenal Hyperplasia, Polycystic Ovary Syndrome and criminal behavior: A Swedish population based study. *Psychiatry Res.* 2015 Oct 30;229(3):953-9. doi: 10.1016/j.psychres.2015.07.008. Epub 2015 Jul 29. PubMed PMID: 26254797.
- Pinola P, Piltonen TT, Puurunen J, Vanky E, Sundström-Poromaa I, Stener-Victorin E, Ruokonen A, Puukka K, Tapanainen JS, Morin-Papunen LC. Androgen Profile Through Life in Women With Polycystic Ovary Syndrome: A Nordic Multicenter Collaboration Study. *J Clin Endocrinol Metab.* 2015 Sep;100(9):3400-7. doi: 10.1210/jc.2015-2123. Epub 2015 Jul 20. PubMed PMID: 26192874.
- Platt AM. Insulin Resistance, Metabolic Syndrome, and Polycystic Ovary Syndrome in Obese Youth. *NASN Sch Nurse.* 2015 Jul;30(4):207-13. doi: 10.1177/1942602X15575355. Epub 2015 Mar 9. PubMed PMID: 25816425.
- Sjaarda LA, Schisterman EF, Schliep KC, Plowden T, Zarek SM, Yeung E, Wactawski-Wende J, Mumford SL. Dietary Carbohydrate Intake Does Not Impact Insulin Resistance or Androgens in Healthy, Eumenorrheic Women. *J Clin Endocrinol Metab.* 2015 Aug;100(8):2979-86. doi: 10.1210/jc.2015-1957. Epub 2015 Jun 12. PubMed PMID: 26066675; PubMed Central PMCID: PMC4524988.
- Spritzer PM, Motta AB. Adolescence and polycystic ovary syndrome: current concepts on diagnosis and treatment. *Int J Clin Pract.* 2015 Nov;69(11):1236-46. doi: 10.1111/ijcp.12719. Epub 2015 Aug 19. Review. PubMed PMID: 26289303.
- Tsikouras P, Spyros L, Manav B, Zervoudis S, Poiana C, Nikolaos T, Petros P, Dimitraki M, Koukouli C, Galazios G, von Tempelhoff GF. Features of Polycystic Ovary Syndrome in adolescence. *J Med Life.* 2015 Jul-Sep;8(3):291-6. Review. PubMed PMID: 26351529; PubMed Central PMCID: PMC4556908.
- Villarroel C, López P, Merino PM, Iñiguez G, Sir-Petermann T, Codner E. Hirsutism and oligomenorrhea are appropriate screening criteria for polycystic ovary syndrome in adolescents. *Gynecol Endocrinol.* 2015;31(8):625-9. doi: 10.3109/09513590.2015.1025380. Epub 2015 Jul 20. PubMed PMID: 26190534.

Wong JM, Gallagher M, Gooding H, Feldman HA, Gordon CM, Ludwig DS, Ebbeling CB. A randomized pilot study of dietary treatments for polycystic ovary syndrome in adolescents. *Pediatr Obes*. 2015 Jul 1. doi: 10.1111/ijpo.12047. [Epub ahead of print] PubMed PMID: 26132306.

PCOS-Dermatology

Gowri BV, Chandravathi PL, Sindhu PS, Naidu KS. Correlation of Skin Changes with Hormonal Changes in Polycystic Ovarian Syndrome: A Cross-sectional Study Clinical Study. *Indian J Dermatol*. 2015 Jul-Aug;60(4):419. doi: 10.4103/0019-5154.160505. PubMed PMID: 26288423; PubMed Central PMCID: PMC4533553.

Kamangar F, Okhovat JP, Schmidt T, Beshay A, Pasch L, Cedars MI, Huddleston H, Shinkai K. Polycystic Ovary Syndrome: Special Diagnostic and Therapeutic Considerations for Children. *Pediatr Dermatol*. 2015 Sep-Oct;32(5):571-8. doi: 10.1111/pde.12566. Epub 2015 Mar 19. PubMed PMID: 25787290.

Moro F, Tropea A, Scarinci E, Federico A, De Simone C, Caldarola G, Leoncini E, Boccia S, Lanzone A, Apa R. Psoriasis and polycystic ovary syndrome: a new link in different phenotypes. *Eur J Obstet Gynecol Reprod Biol*. 2015 Aug;191:101-5. doi: 10.1016/j.ejogrb.2015.06.002. Epub 2015 Jun 16. PubMed PMID: 26115053.

Smith KJ, Germain M. Polycystic ovary syndrome (PCOS) with melanocytic mucosal macules: the role of STK11 gene polymorphisms in PCOS and Peutz-Jeghers syndrome. *Int J Dermatol*. 2015 Jul 3. doi: 10.1111/ijd.12787. [Epub ahead of print] PubMed PMID: 26147831.

PCOS-Endocrine Disruptors

Lee S, Jung D, Kho Y, Ji K, Kim P, Ahn B, Choi K. Ecotoxicological assessment of cimetidine and determination of its potential for endocrine disruption using three test organisms: *Daphnia magna*, *Moina macrocopa*, and *Danio rerio*. *Chemosphere*. 2015 Sep;135:208-16.

Palioura E, Kandaraki E, Diamanti-Kandarakis E. Endocrine disruptors and polycystic ovary syndrome: a focus on Bisphenol A and its potential pathophysiological aspects. *Horm Mol Biol Clin Investig*. 2014 Mar;17(3):137-44.

PCOS-Animal models

Cernea M, Padmanabhan V, Goodman RL, Coolen LM, Lehman MN. Prenatal Testosterone Treatment Leads to Changes in the Morphology of KNDy Neurons, Their Inputs, and Projections to GnRH Cells in Female Sheep. *Endocrinology*. 2015 Sep;156(9):3277-91.

Diane A, Kupreeva M, Borthwick F, Proctor SD, Pierce WD, Vine DF. Cardiometabolic and reproductive benefits of early dietary energy restriction and voluntary exercise in an obese PCOS-prone rodent model. *J Endocrinol*. 2015 Sep;226(3):193-206.

Franks S. Can Animal Models of PCOS Help Point the Way Towards Early and Effective Therapeutic Intervention in Women With the Syndrome? *Endocrinology*. 2015 Jul;156(7):2371-3.

Hakkarainen J, Jokela H, Pakarinen P, Heikelä H, Kätänaho L, Vandenput L, Ohlsson C, Zhang FP, Poutanen M. Hydroxysteroid (17 β)-dehydrogenase 1-deficient female mice present with normal puberty onset but are severely subfertile due to a defect in luteinization and progesterone production. *FASEB J*. 2015 Sep;29(9):3806-16.

Kauffman AS, Thackray VG, Ryan GE, Tolson KP, Glidewell-Kenney CA, Semaan SJ, Poling MC, Iwata N, Breen KM, Duleba AJ, Stener-Victorin E, Shimasaki S, Webster NJ, Mellon PL. A Novel Letrozole Model Recapitulates Both the Reproductive and Metabolic Phenotypes of Polycystic Ovary Syndrome in Female Mice. *Biol Reprod*. 2015 Sep;93(3):69.

Liu W, Liu W, Fu Y, Wang Y, Zhang Y. Bak Foong pills combined with metformin in the treatment of a polycystic ovarian syndrome rat model. *Oncol Lett.* 2015 Sep;10(3):1819-1825.

Tao X, Zhang X, Ge SQ, Zhang EH, Zhang B. Expression of SIRT1 in the ovaries of rats with polycystic ovary syndrome before and after therapeutic intervention with exenatide. *Int J Clin Exp Pathol.* 2015 Jul 1;8(7):8276-83.

PCOS-General Health

Joham AE, Boyle JA, Zoungas S, Teede HJ. Hypertension in Reproductive-Aged Women With Polycystic Ovary Syndrome and Association With Obesity. *Am J Hypertens.* 2015 Jul;28(7):847-51. doi: 10.1093/ajh/hpu251. Epub 2014 Dec 26. PubMed PMID: 25542625.

Luque-Ramírez M, Alpañés M, Sanchón R, Fernández-Durán E, Ortiz-Flores AE, Escobar-Morreale HF. Referral bias in female functional hyperandrogenism and polycystic ovary syndrome. *Eur J Endocrinol.* 2015 Nov;173(5):603-10. doi: 10.1530/EJE-15-0646. Epub 2015 Aug 4. PubMed PMID: 26243032.

Mortada R, Williams T. Metabolic Syndrome: Polycystic Ovary Syndrome. *FP Essent.* 2015 Aug;435:30-42. Review. PubMed PMID: 26280343.

Palomba S, Santagni S, Falbo A, La Sala GB. Complications and challenges associated with polycystic ovary syndrome: current perspectives. *Int J Womens Health.* 2015 Jul 31;7:745-63. doi: 10.2147/IJWH.S70314. eCollection 2015. Review. PubMed PMID: 26261426; PubMed Central PMCID: PMC4527566.

Salama AA, Amine EK, Salem HA, Abd El Fattah NK. Anti-Inflammatory Dietary Combo in Overweight and Obese Women with Polycystic Ovary Syndrome. *N Am J Med Sci.* 2015 Jul;7(7):310-6. doi: 10.4103/1947-2714.161246. PubMed PMID: 26258078; PubMed Central PMCID: PMC4525389.

PCOS – Genetics

Anastasia K, Koika V, Roupas ND, Armeni A, Marioli D, Panidis D, George A, Georgopoulos NA. Association of Calpain (CAPN) 10 (UCSNP-43, rs3792267) gene polymorphism with elevated serum androgens in young women with the most severe phenotype of polycystic ovary syndrome (PCOS). *Gynecol Endocrinol.* 2015 Aug;31(8):630-4. doi: 10.3109/09513590.2015.1032932. Epub 2015 Sep 17. PMID: 26376770.

Ben Salem A, Attaoua R, Mtiraoui N, Meddeb S, Kacem O, Ajina M, Souissi M, Poucheret P, Normand C, Mahjoub T, Grigorescu F. Haplotyping strategy highlights the specificity of FTO gene association with polycystic ovary syndrome in Tunisian women population. *Gene.* 2015 Jul 10;565(2):166-70. doi: 10.1016/j.gene.2014.12.004. Epub 2014 Dec 12. PMID: 25498334.

Dadachanji R, Shaikh N, Khavale S, Patil A, Shah N, Mukherjee S. PON1 polymorphisms are associated with polycystic ovary syndrome susceptibility, related traits, and PON1 activity in Indian women with the syndrome. *Fertil Steril.* 2015 Jul;104(1):207-16. doi: 10.1016/j.fertnstert.2015.03.037. Epub 2015 May 5. PMID: 25956367.

Dasgupta S, Dutta J, Annamaneni S, Kudugunti N, Battini MR. Association of vitamin D receptor gene polymorphisms with polycystic ovary syndrome among Indian women. *Indian J Med Res.* 2015 Sep;142(3):276-85. doi: 10.4103/0971-5916.166587. PMID: 26458343.

Day FR, Hinds DA, Tung JY, Stolk L, Styrkarsdottir U, Saxena R, Bjornes A, Broer L, Dunger DB, Halldorsson BV, Lawlor DA, Laval G, Mathieson I, McCardle WL, Louwers Y, Meun C, Ring S, Scott RA, Sulem P, Uitterlinden AG, Wareham NJ, Thorsteinsdottir U, Welt C, Stefansson K, Laven JS, Ong KK, Perry JR. Causal mechanisms and balancing selection inferred from genetic associations with polycystic ovary syndrome. *Nat Commun.* 2015 Sep 29;6:8464. doi: 10.1038/ncomms9464. PMID: 26416764.

- Hayes MG, Urbanek M, Ehrmann DA, Armstrong LL, Lee JY, Sisk R, Karaderi T, Barber TM, McCarthy MI, Franks S, Lindgren CM, Welt CK, Diamanti-Kandarakis E, Panidis D, Goodarzi MO, Azziz R, Zhang Y, James RG, Olivier M, Kissebah AH; Genome-wide association of polycystic ovary syndrome implicates alterations in gonadotropin secretion in European ancestry populations. Reproductive Medicine Network, Stener-Victorin E, Legro RS, Dunaif A. *Nat Commun*. 2015 Aug 18;6:7502. doi: 10.1038/ncomms8502. PMID: 26284813.
- Jedrzejuk D, Łaczmański Ł, Milewicz A, Kuliczowska-Płaksej J, Lenarcik-Kabza A, Hirnle L, Zaleska-Dorobisz U, Lwow F. Classic PCOS phenotype is not associated with deficiency of endogenous vitamin D and VDR gene polymorphisms rs731236 (Taql), rs7975232 (ApaI), rs1544410 (BsmI), rs10735810 (FokI): a case-control study of lower Silesian women. *Gynecol Endocrinol*. 2015 Sep 30:1-4. PMID: 26422783.
- Jensterle M, Pirš B, Goričar K, Dolžan V, Janež A. Genetic variability in GLP-1 receptor is associated with inter-individual differences in weight lowering potential of liraglutide in obese women with PCOS: a pilot study. *Eur J Clin Pharmacol*. 2015 Jul;71(7):817-24. doi: 10.1007/s00228-015-1868-1. Epub 2015 May 21. PMID: 25991051.
- Jones MR, Brower MA, Xu N, Cui J, Mengesha E, Chen YD, Taylor KD, Azziz R, Goodarzi MO. Systems Genetics Reveals the Functional Context of PCOS Loci and Identifies Genetic and Molecular Mechanisms of Disease Heterogeneity. *PLoS Genet*. 2015 Aug 25;11(8):e1005455. doi: 10.1371/journal.pgen.1005455. eCollection 2015 Aug. PMID: 26305227.
- Liu S, Zhang X, Shi C, Lin J, Chen G, Wu B, Wu L, Shi H, Yuan Y, Zhou W, Sun Z, Dong X, Wang J. Altered microRNAs expression profiling in cumulus cells from patients with polycystic ovary syndrome. *J Transl Med*. 2015 Jul 22;13:238. doi: 10.1186/s12967-015-0605-y. PMID: 26198660.
- Liu Z, Hao C, Song D, Zhang N, Bao H, Qu Q. Androgen Receptor Coregulator CTBP1-AS Is Associated With Polycystic Ovary Syndrome in Chinese Women: A Preliminary Study. *Reprod Sci*. 2015 Jul;22(7):829-37. doi: 10.1177/1933719114565037. Epub 2014 Dec 31. PMID: 25552498.
- Meczekalski B, Nawrot R, Nowak W, Czyzyk A, Kedzia H, Gozdzicka-Jozefiak A. Study on the zona pellucida 4 (ZP4) gene sequence and its expression in the ovaries of patients with polycystic ovary syndrome. *J Endocrinol Invest*. 2015 Jul;38(7):791-7. doi: 10.1007/s40618-015-0260-4. Epub 2015 Mar 5. PMID: 25740067.
- Obermayer-Pietsch B, Trummer C, Schwetz V, Schweighofer N, Pieber T. Genetics of insulin resistance in polycystic ovary syndrome. *Curr Opin Clin Nutr Metab Care*. 2015 Jul;18(4):401-6. doi: 10.1097/MCO.000000000000190. PMID: 26049638.
- Park JH, Li L, Baek KH. Study of the association of the T869C polymorphism of the transforming growth factor- β 1 gene with polycystic ovary syndrome. *Mol Med Rep*. 2015 Sep;12(3):4560-5. doi: 10.3892/mmr.2015.3896. Epub 2015 Jun 8. PMID: 26059110.
- Ramos RB, Fabris VC, Brondani Lde A, Spritzer PM. Association between rs7903146 and rs12255372 polymorphisms of transcription factor 7-like 2 gene and polycystic ovary syndrome: a systematic review and meta-analysis. *Endocrine*. 2015 Aug;49(3):635-42. doi: 10.1007/s12020-015-0541-x. Epub 2015 Feb 13. PMID: 25678248.
- Saxena R, Bjornes AC, Georgopoulos NA, Koika V, Panidis D, Welt CK. Gene variants associated with age at menopause are also associated with polycystic ovary syndrome, gonadotrophins and ovarian volume. *Hum Reprod*. 2015 Jul;30(7):1697-703. doi: 10.1093/humrep/dev110. Epub 2015 May 20. PMID: 25994816.
- Shi L, Liu S, Zhao W, Shi J. miR-483-5p and miR-486-5p are down-regulated in cumulus cells of metaphase II oocytes from women with polycystic ovary syndrome. *Reprod Biomed Online*. 2015 Jul 15. pii: S1472-6483(15)00359-4. doi: 10.1016/j.rbmo.2015.06.023. PMID: 26283014.

Shim U, Kim HN, Lee H, Oh JY, Sung YA, Kim HL. Pathway Analysis Based on a Genome-Wide Association Study of Polycystic Ovary Syndrome. *PLoS One*. 2015 Aug 26;10(8):e0136609. doi: 10.1371/journal.pone.0136609. eCollection 2015. PMID: 26308735.

Smith KJ, Germain M. Polycystic ovary syndrome (PCOS) with melanocytic mucosal macules: the role of STK11 gene polymorphisms in PCOS and Peutz-Jeghers syndrome. *Int J Dermatol*. 2015 Jul 3. doi: 10.1111/ijd.12787. PMID: 26147831.

Taskin MI, Eser B, Adali E, Kara H, Cuce C, Hismiogullari AA. NUCB2 gene polymorphism and its relationship with nesfatin-1 levels in polycystic ovary syndrome. *Gynecol Endocrinol*. 2015 Sep 15:1-5. PMID: 26369257.

Techatraisak K, Chayachinda C, Wongwananuruk T, Dangrat C, Indhavivadhana S, Rattanachaiyanont M, Thongnoppakhun W. No association between CYP17 -34T/C polymorphism and insulin resistance in Thai polycystic ovary syndrome. *J Obstet Gynaecol Res*. 2015 Sep;41(9):1412-7. doi: 10.1111/jog.12733. Epub 2015 Jun 21. PMID: 26096606.

Wang LH, Wang LM, Zhou N. 4G/5G polymorphism of plasminogen activator inhibitor-1 gene is associated with polycystic ovary syndrome in Chinese patients: a meta-analysis. *Arch Gynecol Obstet*. 2015 Sep;292(3):683-6. doi: 10.1007/s00404-015-3678-1. Epub 2015 Mar 3. PMID: 25731152.

Wang Q, Tong X, Ji Y, Li H, Lu W, Song Z. Meta-analysis of the correlation between IL-6 -174 G/C polymorphism and polycystic ovarian syndrome. *J Obstet Gynaecol Res*. 2015 Jul;41(7):1087-92. doi: 10.1111/jog.12682. Epub 2015 Mar 21. PMID: 25809118.

Yu YY, Sun CX, Liu YK, Li Y, Wang L, Zhang W. Genome-wide screen of ovary-specific DNA methylation in polycystic ovary syndrome. *Fertil Steril*. 2015 Jul;104(1):145-153.e6. doi: 10.1016/j.fertnstert.2015.04.005. Epub 2015 May 5. PMID: 25956362.

Zaree M, Shahnazi V, Fayezi S, Darabi M, Mehrzad-Sadaghiani M, Darabi M, Khani S, Nouri M. Expression Levels of PPAR γ and CYP-19 in Polycystic Ovarian Syndrome Primary Granulosa Cells: Influence of ω -3 Fatty Acid. *Int J Fertil Steril*. 2015 Jul-Sep;9(2):197-204. Epub 2015 Jul 27. PMID: 26246878.

Zhao S, Tian Y, Gao X, Zhang X, Liu H, You L, Cao Y, Su S, Chan WY, Sun Y, Zhao H, Chen ZJ. Family-based analysis of eight susceptibility loci in polycystic ovary syndrome. *Sci Rep*. 2015 Jul 29;5:12619. doi: 10.1038/srep12619. PMID: 26220222.

[No authors listed] PCOS: Susceptibility loci identified in women of European descent. *Nat Rev Endocrinol*. 2015 Aug 25. doi: 10.1038/nrendo.2015.150. No abstract available. PMID: 26303596.

PCOS-Immunological Considerations

Victor VM, Rovira-Llopis S, Bañuls C, Diaz-Morales N, Castello R, Falcon R, Gomez M, Rocha M, Hernandez Mijares A. Effects of metformin on mitochondrial function of leukocytes from polycystic ovary syndrome patients with insulin resistance. *Eur J Endocrinol*. 2015 Aug 28. pii: EJE-15-0572. PMID: 26320144.

Victor VM, Rovira-Llopis S, Bañuls C, Diaz-Morales N, Lopez-Domenech S, Escibano-López I, Rios-Navarro C, Alvarez A, Gomez M, Rocha M, Hernandez-Mijares A. Metformin modulates human leukocyte/endothelial cell interactions and proinflammatory cytokines in polycystic ovary syndrome patients. *Atherosclerosis*. 2015 Sep;242(1):167-73. doi: 10.1016/j.atherosclerosis.2015.07.017. Epub 2015 Jul 10. PMID: 26188541.

PCOS-Menopause

de Melo AS, Dias SV, Cavalli Rde C, Cardoso VC, Bettiol H, Barbieri MA, Ferriani RA, Vieira CS. Pathogenesis of polycystic ovary syndrome: multifactorial assessment from the foetal stage to

menopause. *Reproduction*. 2015 Jul;150(1):R11-24. doi: 10.1530/REP-14-0499. Epub 2015 Apr 2. PMID: 25835506.

Gabrielli L, de Almeida Mda C, Aquino EM. Proposed criteria for the identification of polycystic ovary syndrome following menopause: An ancillary study of the Brazilian Longitudinal Study of Adult Health (ELSA-Brasil). *Maturitas*. 2015 Jul;81(3):398-405. doi: 10.1016/j.maturitas.2015.04.013. Epub 2015 May 5. PMID: 26004079.

Pinola P, Piltonen TT, Puurunen J, Vanky E, Sundström-Poromaa I, Stener-Victorin E, Ruokonen A, Puukka K, Tapanainen JS, Morin-Papunen LC. Androgen profile through life in women with polycystic ovary syndrome: A Nordic multicenter collaboration study. *J Clin Endocrinol Metab*. 2015 Jul 20:jc20152123. PMID: 26192874.

PCOS-Metabolic Dysfunction/Cardiovascular Disease/Inflammation

Agacayak E, Tunc SY, Sak S, Basaranoglu S, Yüksel H, Turgut A, Gul T. Levels of Neopterin and other Inflammatory Markers in Obese and Non-Obese Patients with Polycystic Ovary Syndrome. *Med Sci Monit*. 2015 Aug 20;21:2446-55. doi: 10.12659/MSM.894368. PMID: 26292090.

Akcalı A, Bostanci N, Özçaka Ö, Öztürk-Ceyhan B, Gümüş P, Tervahartiala T, Husu H, Buduneli N, Sorsa T, Belibasakis GN. Elevated matrix metalloproteinase-8 in saliva and serum in polycystic ovary syndrome and association with gingival inflammation. *Innate Immun*. 2015 Aug;21(6):619-25. doi: 10.1177/1753425915572172. Epub 2015 Feb 23. PMID: 25712810.

Akdag S, Cim N, Yildizhan R, Akyol A, Ozturk F, Babat N. Two markers in predicting the cardiovascular events in patients with polycystic ovary syndrome: increased P-wave and QT dispersion. *Eur Rev Med Pharmacol Sci*. 2015 Sep;19(18):3508-14. PMID: 26439050.

Aldrighi JM, Tsutsui JM, Kowastch I, Ribeiro AL, Scapinelli A, Tamanaha S, Oliveira RM, Mathias W Jr. Effects of Insulin Resistance on Myocardial Blood Flow and Arterial Peripheral Circulation in Patients with Polycystic Ovary Syndrome. *Echocardiography*. 2015 Aug;32(8):1277-84. doi: 10.1111/echo.12849. Epub 2014 Nov 21. PMID: 25412756.

Ali AT. Polycystic ovary syndrome and metabolic syndrome. *Ceska Gynekol*. 2015 Aug;80(4):279-89. PMID: 26265416.

Alp E, Görmüş U, Güdücü N, Bozkurt S. Nesfatin-1 levels and metabolic markers in polycystic ovary syndrome. *Gynecol Endocrinol*. 2015 Jul;31(7):543-7. doi: 10.3109/09513590.2015.1024219. Epub 2015 Jun 10. PMID: 26062107.

Amato MC, Vesco R, Vigneri E, Ciresi A, Giordano C. Hyperinsulinism and polycystic ovary syndrome (PCOS): role of insulin clearance. *J Endocrinol Invest*. 2015 Aug 21. PMID: 26294351.

Asante A, Omurtag K, Stewart EA, Coddington CC. Screening for Insulin Resistance in Polycystic Ovary Syndrome: Views of Physician Members of the American Society for Reproductive Medicine. *J Reprod Med*. 2015 Sep-Oct;60(9-10):371-7. PMID: 26592060.

Asemi Z, Foroozanfard F, Hashemi T, Bahmani F, Jamilian M, Esmailzadeh A. Calcium plus vitamin D supplementation affects glucose metabolism and lipid concentrations in overweight and obese vitamin D deficient women with polycystic ovary syndrome. *Clin Nutr*. 2015 Aug;34(4):586-92. doi: 10.1016/j.clnu.2014.09.015. Epub 2014 Oct 3. PMID: 25300649.

Aziz M, Sidelmann JJ, Wissing ML, Faber J, Skouby SO. Endogenous thrombin potential in polycystic ovary syndrome: the association to body mass index, insulin resistance, and inflammation. *Gynecol Endocrinol*. 2015 Aug 18:1-5. PMID: 26291802.

Bacchi E, Negri C, Di Sarra D, Tosi F, Tarperi C, Moretta R, Schena F, Bonora E, Kaufman JM, Moghetti P. Serum testosterone predicts cardiorespiratory fitness impairment in normal-weight women

with polycystic ovary syndrome. *Clin Endocrinol (Oxf)*. 2015 Jul 15. doi: 10.1111/cen.12855. PMID: 26173542.

Bakiner O, Simsek Bagir G, Bozkirli E, Cavlak G, Serinsöz H, Ertorer E. Body Mass Index Below Obesity Threshold Implies Similar Cardiovascular Risk Among Various Polycystic Ovary Syndrome Phenotypes. *Med Princ Pract*. 2015 Sep 3. PMID: 26335185.

Boots CE, Jungheim ES. Inflammation and Human Ovarian Follicular Dynamics. *Semin Reprod Med*. 2015 Jul;33(4):270-5. doi: 10.1055/s-0035-1554928. Epub 2015 Jul 1. PMID: 26132931.

Boyle JA, Cunningham J, O'Dea K, Dunbar T, Norman R. Polycystic ovary syndrome and Metabolic syndrome in Indigenous Australian women. *Intern Med J*. 2015 Sep 19. doi: 10.1111/imj.12910. PMID: 26387977.

Cassar S, Teede HJ, Harrison CL, Joham AE, Moran LJ, Stepto NK. Biomarkers and insulin sensitivity in women with Polycystic Ovary Syndrome: Characteristics and predictive capacity. *Clin Endocrinol (Oxf)*. 2015 Jul;83(1):50-8. doi: 10.1111/cen.12619. Epub 2014 Nov 7. PMID: 25262763.

Chun S. 1-h Postprandial glucose level is related to the serum anti-Müllerian hormone level in women with polycystic ovary syndrome. *Gynecol Endocrinol*. 2015 Aug 18:1-4. PMID: 26291804.

Churchill SJ, Wang ET, Bhasin G, Alexander C, Bresee C, Pall M, Azziz R, Mathur R, Pisarska MD. Basal metabolic rate in women with PCOS compared to eumenorrheic controls. *Clin Endocrinol (Oxf)*. 2015 Sep;83(3):384-8. doi: 10.1111/cen.12740. Epub 2015 Mar 5. PMID: 25660380.

Churchill SJ, Wang ET, Pisarska MD. Metabolic consequences of polycystic ovary syndrome. *Minerva Ginecol*. 2015 Sep 15. PMID: 26372304.

Costa EC, de Sá JC, Costa IB, Meireles RD, Lemos TM, Elsangedy HM, Krinski K, Azevedo GD. Affect-regulated exercise: an alternative approach for lifestyle modification in overweight/obese women with polycystic ovary syndrome. *Gynecol Endocrinol*. 2015 Sep 29:1-5. PMID: 26416702.

Daan NM, Jaspers L, Koster MP, Broekmans FJ, de Rijke YB, Franco OH, Laven JS, Kavousi M, Fauser BC. Androgen levels in women with various forms of ovarian dysfunction: associations with cardiometabolic features. *Hum Reprod*. 2015 Aug 12. pii: dev195. PMID: 26269538.

De Frène V, Verhofstadt L, Lammertyn J, Stuyver I, Buysse A, De Sutter P. Quality of Life and Body Mass Index in Overweight Adult Women with Polycystic Ovary Syndrome During a Lifestyle Modification Program. *J Obstet Gynecol Neonatal Nurs*. 2015 Sep;44(5):587-99. doi: 10.1111/1552-6909.12739. Epub 2015 Aug 18. PMID: 26284937.

de Mendonça-Louzeiro MR, Annichino-Bizzacchi JM, Benetti-Pinto CL. Android fat distribution affects some hemostatic parameters in women with polycystic ovary syndrome compared with healthy control subjects matched for age and body mass index. *Fertil Steril*. 2015 Aug;104(2):467-73. doi: 10.1016/j.fertnstert.2015.05.013. Epub 2015 Jun 11. PMID: 26051101.

Demir B, Cengiz H, Ungan I, Gedikbasi A, Karakoç G, Demir E, Demir N. The relationship between epicardial adipose tissue thickness and oxidative stress parameters in patients with isolated polycystic ovary syndrome. *Gynecol Endocrinol*. 2015 Jul;31(7):531-5. doi: 10.3109/09513590.2015.1018160. PMID: 26340353.

Desai NA, Patel SS. Increased insulin-like growth factor-1 in relation to cardiovascular function in polycystic ovary syndrome: friend or foe? *Gynecol Endocrinol*. 2015 Aug 19:1-7. PMID: 26288196.

Enkhmaa B, Anuurad E, Zhang W, Abbuthalha A, Kaur P, Visla J, Karakas S, Berglund L. Lipoprotein(a) and Apolipoprotein(a) in Polycystic Ovary Syndrome. *Clin Endocrinol (Oxf)*. 2015 Sep 4. doi: 10.1111/cen.12937. PMID: 26341109.

Ganie MA, Dhingra A, Nisar S, Srinivas V, Shah ZA, Rashid A, Masoodi S, Gupta N. Oral glucose tolerance test significantly impacts the prevalence of abnormal glucose tolerance among Indian

women with polycystic ovary syndrome: lessons from a large database of two tertiary care centers on the Indian subcontinent. *Fertil Steril*. 2015 Sep 22. pii: S0015-0282(15)01891-9. doi: 10.1016/j.fertnstert.2015.09.005. PMID: 26407537.

García V, Oróstica L, Poblete C, Rosas C, Astorga I, Romero C, Vega M. Endometria from Obese PCOS Women with Hyperinsulinemia Exhibit Altered Adiponectin Signaling. *Horm Metab Res*. 2015 Jul 21. PMID: 26197851.

González F. Nutrient-Induced Inflammation in Polycystic Ovary Syndrome: Role in the Development of Metabolic Aberration and Ovarian Dysfunction. *Semin Reprod Med*. 2015 Jul;33(4):276-86. doi: 10.1055/s-0035-1554918. Epub 2015 Jul 1. PMID: 26132932.

Gozukara IO, Gozukara KH, Kucur SK, Karakılıç EU, Keskin H, Akdeniz D, Aksoy AN, Carlıoglu A. Association of Glomerular Filtration Rate with Inflammation in Polycystic Ovary Syndrome. *Int J Fertil Steril*. 2015 Jul-Sep;9(2):176-82. Epub 2015 Jul 27. PMID: 26246875.

Greenwood EA, Pasch LA, Shinkai K, Cedars MI, Huddleston HG. Putative role for insulin resistance in depression risk in polycystic ovary syndrome. *Fertil Steril*. 2015 Sep;104(3):707-714.e1. doi: 10.1016/j.fertnstert.2015.05.019. Epub 2015 Jun 19. PMID: 26054555.

Güldaş M, Altinkaya SÖ, Nergiz S, Demircan-Sezer S, Yüksel H. Elevated thrombin activatable fibrinolysis inhibitor levels in women with polycystic ovary syndrome. *Gynecol Endocrinol*. 2015 Jul;31(7):536-9. doi: 10.3109/09513590.2015.1018161. Epub 2015 Jul 29. PMID: 26220768.

Güneş M, Bukan N. Examination of angiopoietin-like protein 4, neuropeptide Y, omentin-1 levels of obese and non-obese patients with polycystic ovary syndrome. *Gynecol Endocrinol*. 2015 Aug 19:1-4. PMID: 26291814.

Hsu MI. Clinical characteristics in Taiwanese women with polycysticovary syndrome. *Clin Exp Reprod Med*. 2015 Sep;42(3):86-93. doi: 10.5653/cerm.2015.42.3.86. Epub 2015 Sep 30. Review. PMID: 26473107.

Hyderali BN, Mala K. Oxidative stress and cardiovascular complications in polycystic ovarian syndrome. *Eur J Obstet Gynecol Reprod Biol*. 2015 Aug;191:15-22. doi: 10.1016/j.ejogrb.2015.05.005. Epub 2015 Jun 2. PMID: 26066290.

Inal HA, Yilmaz N, Gorkem U, Oruc AS, Timur H. The impact of follicular fluid adiponectin and ghrelin levels based on BMI on IVF outcomes in PCOS. *J Endocrinol Invest*. 2015 Sep 26. PMID: 26410834.

Jamilian M, Asemi Z. Chromium Supplementation and the Effects on Metabolic Status in Women with Polycystic Ovary Syndrome: A Randomized, Double-Blind, Placebo-Controlled Trial. *Ann Nutr Metab*. 2015 Jul 31;67(1):42-48. PMID: 26279073.

Jamilian M, Foroozanfard F, Bahmani F, Talaei R, Monavari M, Asemi Z. Effects of Zinc Supplementation on Endocrine Outcomes in Women with Polycystic Ovary Syndrome: a Randomized, Double-Blind, Placebo-Controlled Trial. *Biol Trace Elem Res*. 2015 Aug 28. PMID: 26315303.

Jia XZ, Wang YM, Zhang N, Guo LN, Zhen XL, Li H, Wei L. Effect of vitamin D on clinical and biochemical parameters in polycystic ovary syndrome women: A meta-analysis. *J Obstet Gynaecol Res*. 2015 Sep 14. doi: 10.1111/jog.12793. PMID: 26370491.

Jin CH, Yuk JS, Choi KM, Yi KW, Kim T, Hur JY, Shin JH. Body fat distribution and its associated factors in Korean women with polycystic ovary syndrome. *J Obstet Gynaecol Res*. 2015 Aug 9. doi: 10.1111/jog.12767. PMID: 26257142.

Joham AE, Boyle JA, Zoungas S, Teede HJ. Hypertension in Reproductive-Aged Women With Polycystic Ovary Syndrome and Association With Obesity. *Am J Hypertens*. 2015 Jul;28(7):847-51. doi: 10.1093/ajh/hpu251. Epub 2014 Dec 26. PMID: 25542625.

- Joham AE, Teede HJ, Cassar S, Stepto NK, Strauss BJ, Harrison CL, Boyle J, de Courten B. Vitamin D in polycystic ovary syndrome: Relationship to obesity and insulin resistance. *Mol Nutr Food Res*. 2015 Aug 10. doi: 10.1002/mnfr.201500259. PMID: 26255991.
- Johnson LK, Holven KB, Nordstrand N, Mellembakken JR, Tanbo T, Hjeltnes J. Fructose content of low calorie diets: effect on cardiometabolic risk factors in obese women with polycystic ovarian syndrome: a randomized controlled trial. *Endocr Connect*. 2015 Sep;4(3):144-54. doi: 10.1530/EC-15-0047. PMID: 26138702.
- Kir Sahin F, Baydur Sahin S, Mete Ural U, Cumhuri Cure M, Senturk S, Bayoglu Tekin Y, Balik G, Cure E, Yuce S, Kirbas A. Nesfatin-1 and Vitamin D levels may be associated with systolic and diastolic blood pressure values and heart rate in polycystic ovary syndrome. *Bosn J Basic Med Sci*. 2015 Jul 9;15(3):57-63. doi: 10.17305/bjbms.2015.432. PMID: 26295295.
- Kiyak Caglayan E, Engin-Ustun Y, Gocmen AY, Polat MF, Aktulay A. Serum sirtuin 1 levels in patients with polycystic ovary syndrome. *J Obstet Gynaecol*. 2015 Aug;35(6):608-11. doi: 10.3109/01443615.2014.990428. Epub 2014 Dec 19. PMID: 25526506.
- Ko PC, Huang SY, Hsieh CH, Hsu MI, Hsu CS. Serum ferritin levels and polycystic ovary syndrome in obese and nonobese women. *Taiwan J Obstet Gynecol*. 2015 Aug;54(4):403-7. doi: 10.1016/j.tjog.2014.06.005. PMID: 26384059.
- Kriseman M, Mills C, Kovanci E, Sangi-Haghpeykar H, Gibbons W. Antimullerian hormone levels are inversely associated with body mass index (BMI) in women with polycystic ovary syndrome. *J Assist Reprod Genet*. 2015 Aug 4. PMID: 26238387.
- Kushnir VA, Halevy N, Barad DH, Albertini DF, Gleicher N. Relative importance of AMH and androgens changes with aging among non-obese women with polycystic ovary syndrome. *J Ovarian Res*. 2015 Jul 9;8(1):45. doi: 10.1186/s13048-015-0175-x. PMID: 26156856.
- Li HW, Lam KS, Tam S, Lee VC, Yeung TW, Cheung PT, Yeung WS, Ho PC, Ng EH. Screening for dysglycaemia by oral glucose tolerance test should be recommended in all women with polycystic ovary syndrome. *Hum Reprod*. 2015 Sep;30(9):2178-83. doi: 10.1093/humrep/dev166. Epub 2015 Jul 22. PMID: 26202923.
- Lin T, Li S, Xu H, Zhou H, Feng R, Liu W, Sun Y, Ma J. Gastrointestinal hormone secretion in women with polycystic ovary syndrome: an observational study. *Hum Reprod*. 2015 Sep 15. pii: dev231. PMID: 26373789.
- Liu M, Gao J, Zhang Y, Li P, Wang H, Ren X, Li C. Serum levels of TSP-1, NF- κ B, and TGF- β 1 in polycystic ovarian syndrome (PCOS) patients in northern China suggest PCOS is associated with chronic inflammation. *Clin Endocrinol (Oxf)*. 2015 Sep 22. doi: 10.1111/cen.12951. PMID: 26391700.
- Macut D, Božić Antić I, Bjekić-Macut J, Panidis D, Tziomalos K, Vojnović Milutinović D, Stanojlović O, Kastratović-Kotlica B, Petakov M, Milić N. Lipid accumulation product is associated with metabolic syndrome in women with polycystic ovary syndrome. *Hormones (Athens)*. 2015 Jul 15. doi: 10.14310/horm.2002.1592. PMID: 26188230.
- Meyer ML, Tepper PG, Barinas-Mitchell E, Korytkowski MT, Talbott EO. Varying patterns of brachial artery flow-mediated dilatation in women with polycystic ovary syndrome and controls: An application of the group-based trajectory modeling. *J Clin Ultrasound*. 2015 Jul 14. doi: 10.1002/jcu.22280. PMID: 26177749.
- Mortada R, Williams T. Metabolic Syndrome: Polycystic Ovary Syndrome. *FP Essent*. 2015 Aug;435:30-42. PMID: 26280343.
- Naderpoor N, Shorakae S, de Courten B, Misso ML, Moran LJ, Teede HJ. Metformin and lifestyle modification in polycystic ovary syndrome: systematic review and meta-analysis. *Hum Reprod Update*. 2015 Sep;21(5):560-74. doi: 10.1093/humupd/dmv025. Epub 2015 Jun 9. PMID: 26060208.

- Olszanecka-Glinianowicz M, Madej P, Owczarek A, Chudek J, Skalba P. Circulating anti-Müllerian hormone levels in relation to nutritional status and selected adipokines levels in polycystic ovary syndrome. *Clin Endocrinol (Oxf)*. 2015 Jul;83(1):98-104. doi: 10.1111/cen.12687. Epub 2015 Feb 3. PMID: 25440474.
- Örnek N, İnal M, Tulmaç ÖB, Özcan-Dağ Z, Örnek K. Ocular blood flow in polycystic ovary syndrome. *J Obstet Gynaecol Res*. 2015 Jul;41(7):1080-6. doi: 10.1111/jog.12673. Epub 2015 Feb 6. PMID: 25655141.
- Pearce K, Gleeson K, Tremellen K. Serum anti-Mullerian hormone production is not correlated with seasonal fluctuations of vitamin D status in ovulatory or PCOS women. *Hum Reprod*. 2015 Sep;30(9):2171-7. doi: 10.1093/humrep/dev167. Epub 2015 Jul 22. PMID: 26202912.
- Pertynska-Marczewska M, Diamanti-Kandarakis E, Zhang J, Merhi Z. Advanced glycation end products: A link between metabolic and endothelial dysfunction in polycystic ovary syndrome? *Metabolism*. 2015 Aug 20. pii: S0026-0495(15)00229-2. doi: 10.1016/j.metabol.2015.08.010. Review. PMID: 26386695.
- Platt AM. Insulin Resistance, Metabolic Syndrome, and Polycystic Ovary Syndrome in Obese Youth. *NASN Sch Nurse*. 2015 Jul;30(4):207-13. doi: 10.1177/1942602X15575355. Epub 2015 Mar 9. PMID: 25816425 PMID: 26048913.
- Pukajło K, Łaczmański Ł, Kolackov K, Kuliczowska-Płaksej J, Bolanowski M, Milewicz A, Daroszewski J. Irisin plasma concentration in PCOS and healthy subjects is related to body fat content and android fat distribution. *Gynecol Endocrinol*. 2015 Jul 25:1-5. PMID: 26172924.
- Ramezani Tehrani F, Montazeri SA, Hosseinpanah F, Cheraghi L, Erfani H, Tohidi M, Azizi F. Trend of Cardio-Metabolic Risk Factors in Polycystic Ovary Syndrome: A Population-Based Prospective Cohort Study. *PLoS One*. 2015 Sep 11;10(9):e0137609. doi: 10.1371/journal.pone.0137609. eCollection 2015. PMID: 26360602.
- Randriamboavonjy V, Mann WA, Elgheznawy A, Popp R, Rogowski P, Dornauf I, Dröse S, Fleming I. Metformin reduces hyper-reactivity of platelets from patients with polycystic ovary syndrome by improving mitochondrial integrity. *Thromb Haemost*. 2015 Aug 31;114(3):569-78. doi: 10.1160/TH14-09-0797. Epub 2015 May 21. PMID: 25993908.
- Sahin FK, Sahin SB, Ural UM, Cure MC, Senturk S, Tekin YB, Balik G, Cure E, Yuce S, Kirbas A. Nesfatin-1 and Vitamin D levels may be associated with systolic and diastolic blood pressure values and hearth rate in polycystic ovary syndrome. *Bosn J Basic Med Sci*. 2015 Jul 9;15(3):57-63. doi: 10.17305/bjbm.2015.432. PMID: 26295295.
- Sahin SB, Durakoglugil T, Ayaz T, Sahin OZ, Durakoglugil E, Sumer F, Aktas E, Alyildiz N. Evaluation of para- and perirenal fat thickness and its association with metabolic disorders in polycystic ovary syndrome. *Endocr Pract*. 2015 Aug;21(8):878-86. doi: 10.4158/EP14435.OR. Epub 2015 Jun 29. PMID: 26121442.
- Salama AA, Amine EK, Salem HA, Abd El Fattah NK. Anti-Inflammatory Dietary Combo in Overweight and Obese Women with Polycystic Ovary Syndrome. *N Am J Med Sci*. 2015 Jul;7(7):310-6. doi: 10.4103/1947-2714.161246. PMID: 26258078.
- Sarray S, Madan S, Saleh LR, Mahmoud N, Almawi WY. Validity of adiponectin-to-leptin and adiponectin-to-resistin ratios as predictors of polycystic ovary syndrome. *Fertil Steril*. 2015 Aug;104(2):460-6. doi: 10.1016/j.fertnstert.2015.05.007. Epub 2015 Jun 6. PMID: 26051098.
- Shen SH, Shen SY, Liou TH, Hsu MI, Chang YC, Cheng CY, Hsu CS, Tzeng CR. Obesity and inflammatory biomarkers in women with polycystic ovary syndrome. *Eur J Obstet Gynecol Reprod Biol*. 2015 Sep;192:66-71. doi: 10.1016/j.ejogrb.2015.06.022. Epub 2015 Jul 2. PMID: 26177495.

- Shorakae S, Teede H, de Courten B, Lambert G, Boyle J, Moran LJ. The Emerging Role of Chronic Low-Grade Inflammation in the Pathophysiology of Polycystic Ovary Syndrome. *Semin Reprod Med*. 2015 Jul;33(4):257-69. doi: 10.1055/s-0035-1556568. Epub 2015 Jul 1. PMID: 26132930.
- Silva Dantas W, Antonio Miguel Marcondes J, Katsuyuki Shinjo S, Augusto Perandini L, Olzon Zambelli V, Das Neves W, Roberto Grimaldi Barcellos C, Patrocínio Rocha M, Dos Reis Vieira Yance V, Tavares Dos Santos Pereira R, Hisashi Murai I, Lucia De Sá Pinto A, Roschel H, Gualano B. GLUT4 translocation is not impaired after acute exercise in skeletal muscle of women with obesity and polycystic ovary syndrome. *Obesity (Silver Spring)*. 2015 Sep 16. doi: 10.1002/oby.21217. PMID: 26373822.
- Su C, Chen M, Huang H, Lin J. Testosterone enhances lipopolysaccharide-induced interleukin-6 and macrophage chemotactic protein-1 expression by activating the extracellular signal-regulated kinase 1/2/nuclear factor- κ B signalling pathways in 3T3-L1 adipocytes. *Mol Med Rep*. 2015 Jul;12(1):696-704. doi: 10.3892/mmr.2015.3401. Epub 2015 Mar 3. PMID: 25738264.
- Sun Y, Wu Z, Wei L, Liu C, Zhu S, Tang S. High-visfatin levels in women with polycystic ovary syndrome: evidence from a meta-analysis. *Gynecol Endocrinol*. 2015 Sep 30:1-7. PMID: 26422683.
- Suresh S, Vijayakumar T. Correlations of Insulin Resistance and Serum Testosterone Levels with LH:FSH Ratio and Oxidative Stress in Women with Functional Ovarian Hyperandrogenism. *Indian J Clin Biochem*. 2015 Jul;30(3):345-50. doi: 10.1007/s12291-014-0447-z. Epub 2014 Jun 1. PMID: 26089623.
- Unlu E, Unlu BS, Yildiz Y, Beker-Acay M, Kacar E, Turamanlar O, Tulmac OB, Seven A, Ozuguz U. Adrenal gland volume assessed by magnetic resonance imaging in women with polycystic ovary syndrome. *Diagn Interv Imaging*. 2015 Sep 8. pii: S2211-5684(15)00069-8. doi: 10.1016/j.diii.2015.02.004. PMID: 26361992.
- Vassilatou E, Vassiliadi DA, Salambasis K, Lazaridou H, Koutsomitopoulos N, Kelekis N, Kassanos D, Hadjidakis DJ, Dimitriadis G. Increased prevalence of polycystic ovary syndrome in premenopausal women with nonalcoholic fatty liver disease. *Eur J Endocrinol*. 2015 Sep 4. pii: EJE-15-0567. PMID: 26340970.
- Wang W, Wang S, Tan S, Wen M, Qian Y, Zeng X, Guo Y, Yu C. Detection of urine metabolites in polycystic ovary syndrome by UPLC triple-TOF-MS. *Clin Chim Acta*. 2015 Aug 25;448:39-47. doi: 10.1016/j.cca.2015.06.008. Epub 2015 Jun 18. PMID: 26093338.
- Wong JM, Gallagher M, Gooding H, Feldman HA, Gordon CM, Ludwig DS, Ebbeling CB. A randomized pilot study of dietary treatments for polycystic ovary syndrome in adolescents. *Pediatr Obes*. 2015 Jul 1. doi: 10.1111/ijpo.12047. PMID: 26132306.
- Xu N, Geller DH, Jones MR, Funari VA, Azziz R, Goodarzi MO. Comprehensive assessment of expression of insulin signaling pathway components in subcutaneous adipose tissue of women with and without polycystic ovary syndrome. *J Clin Transl Endocrinol*. 2015 Sep;2(3):99-104. PMID: 26236647.
- Yang S, Wang Q, Huang W, Song Y, Feng G, Zhou L, Tan J. Are serum chemerin levels different between obese and non-obese polycystic ovary syndrome women? *Gynecol Endocrinol*. 2015 Aug 19:1-4. PMID: 26291816.
- Yilmaz Ö, Mehmet C, Kelekci S, Temur M. Association between red blood cell distribution width and polycystic ovary syndrome. *Endocr Res*. 2015 Aug 19:1-7. PMID: 25531764.
- Zhao H, Zhao Y, Li T, Li M, Li J, Li R, Liu P, Yu Y, Qiao J. Metabolism alteration in follicular niche: The nexus among intermediary metabolism, mitochondrial function, and classic polycystic ovary syndrome. *Free Radic Biol Med*. 2015 Sep;86:295-307. doi: 10.1016/j.freeradbiomed.2015.05.013. Epub 2015 Jun 6. PMID: 26057937.

PCOS - Neuroendocrine Dysfunction

Juan CC, Chen KH, Wang PH, Hwang JL, Seow KM. Endocannabinoid system activation may be associated with insulin resistance in women with polycystic ovary syndrome. *Fertil Steril*. 2015 Jul;104(1):200-6. doi: 10.1016/j.fertnstert.2015.03.027. Epub 2015 Apr 29. PMID: 25935491.

PCOS-Ovary

Cui P, Li X, Wang X, Feng Y, Lin JF, Billig H, Shao R. Lack of cyclical fluctuations of endometrial GLUT4 expression in women with polycystic ovary syndrome: Evidence for direct regulation of GLUT4 by steroid hormones. *BBA Clin*. 2015 Aug 28;4:85-91. doi: 10.1016/j.bbacli.2015.08.004. eCollection 2015 Dec. PMID: 26675316.

Lebbi I, Ben Temime R, Fadhlou A, Feki A. Ovarian Drilling in PCOS: Is it Really Useful? *Front Surg*. 2015 Jul 17;2:30. doi: 10.3389/fsurg.2015.00030. eCollection 2015. Review. PMID: 26236709.

Tremellen K, Zander-Fox D. Serum anti-Mullerian hormone assessment of ovarian reserve and polycystic ovary syndrome status over the reproductive lifespan. *Aust N Z J Obstet Gynaecol*. 2015 Aug;55(4):384-9. doi: 10.1111/ajo.12366. Epub 2015 Jul 30. PMID: 26230428.

Yang F, Ruan YC, Yang YJ, Wang K, Liang S, Han YB, Teng X, Yang J. Follicular hyperandrogenism downregulates aromatase in luteinized granulosa cells in PCOS women. *Reproduction*. 2015 Jul 21. pii: REP-15-0044. PMID: 26199450.

PCOS - Phenotypic Variation

Alebić MŠ, Stojanović N, Duhamel A, Dewailly D. The phenotypic diversity in per-follicle anti-Müllerian hormone production in polycystic ovary syndrome. *Hum Reprod*. 2015 Aug;30(8):1927-33. doi: 10.1093/humrep/dev131. Epub 2015 Jun 4. PMID: 26048913. Gowri BV, Chandravathi PL, Sindhu PS, Naidu KS. Correlation of Skin Changes with Hormonal Changes in Polycystic Ovarian Syndrome: A Cross-sectional Study Clinical Study. *Indian J Dermatol*. 2015 Jul-Aug;60(4):419. doi: 10.4103/0019-5154.160505. PMID: 26288423.

Jamil AS, Alalaf SK, Al-Tawil NG, Al-Shawaf T. Comparison of clinical and hormonal characteristics among four phenotypes of polycystic ovary syndrome based on the Rotterdam criteria. *Arch Gynecol Obstet*. 2015 Sep 25. PMID: 26408006.

Luque-Ramirez ME, Alpañés M, Sanchón R, Fernández-Durán E, Ortiz-Flores A, Escobar-Morreale HF. Referral bias in female functional hyperandrogenism and polycystic ovary syndrome. *Eur J Endocrinol*. 2015 Aug 4. pii: EJE-15-0646. PMID: 26243032.

Moro F, Tropea A, Scarinci E, Federico A, De Simone C, Caldarola G, Leoncini E, Boccia S, Lanzone A, Apa R. Psoriasis and polycystic ovary syndrome: a new link in different phenotypes. *Eur J Obstet Gynecol Reprod Biol*. 2015 Aug;191:101-5. doi: 10.1016/j.ejogrb.2015.06.002. Epub 2015 Jun 16. PMID: 26115053.

Panidis D, Tziomalos K, Papadakis E, Chatzis P, Kandaraki EA, Tsourdi EA, Macut D, Bjekic-Macut J, Marthopoulos A, Katsikis I. Associations of menstrual cycle irregularities with age, obesity and phenotype in patients with polycystic ovary syndrome. *Hormones (Athens)*. 2015 Jul 15. doi: 10.14310/horm.2002.1593. PMID: 26188231.

PCOS-Pregnancy Complications

Kollmann M, Klaritsch P, Martins WP, Guenther F, Schneider V, Herzog SA, Craciunas L, Lang U, Obermayer-Pietsch B, Lerchbaum E, Raine-Fenning N. Maternal and neonatal outcomes in pregnant women with PCOS: comparison of different diagnostic definitions. *Hum Reprod*. 2015 Oct;30(10):2396-403. doi: 10.1093/humrep/dev187. Epub 2015 Jul 29. PubMed PMID: 26223675.

Løvvik TS, Wikström AK, Neovius M, Stephansson O, Roos N, Vanky E. Pregnancy and perinatal outcomes in women with polycystic ovary syndrome and twin births: a population-based cohort study. *BJOG*. 2015 Sep;122(10):1295-302. doi: 10.1111/1471-0528.13339. Epub 2015 Mar 11. PubMed PMID: 25761516.

Palomba S, de Wilde MA, Falbo A, Koster MP, La Sala GB, Fauser BC. Pregnancy complications in women with polycystic ovary syndrome. *Hum Reprod Update*. 2015 Sep-Oct;21(5):575-92. doi: 10.1093/humupd/dmv029. Epub 2015 Jun 27. Review. PubMed PMID: 26117684.

Sawada M, Masuyama H, Hayata K, Kamada Y, Nakamura K, Hiramatsu Y. Pregnancy complications and glucose intolerance in women with polycystic ovary syndrome. *Endocr J*. 2015 Nov 28;62(11):1017-23. doi: 10.1507/endocrj.EJ15-0364. Epub 2015 Sep 11. PubMed PMID: 26370557.

PCOS Psychology

Annagür BB, Kerimoglu ÖS, Tazegül A, Gündüz Ş, Gençoglu BB. Psychiatric comorbidity in women with polycystic ovary syndrome. *J Obstet Gynaecol Res*. 2015 Aug;41(8):1229-33. doi: 10.1111/jog.12696. Epub 2015 Apr 1. PubMed PMID: 25833092.

Asik M, Altinbas K, Eroglu M, Karaahmet E, Erbag G, Ertekin H, Sen H. Evaluation of affective temperament and anxiety-depression levels of patients with polycystic ovary syndrome. *J Affect Disord*. 2015 Oct 1;185:214-8. doi: 10.1016/j.jad.2015.06.043. Epub 2015 Jul 26. PubMed PMID: 26241866.

Correa JB, Sperry SL, Darkes J. A case report demonstrating the efficacy of a comprehensive cognitive-behavioral therapy approach for treating anxiety, depression, and problematic eating in polycystic ovarian syndrome. *Arch Womens Ment Health*. 2015 Aug;18(4):649-54. doi: 10.1007/s00737-015-0506-3. Epub 2015 Jan 28. PubMed PMID: 25627019.

Greenwood EA, Pasch LA, Shinkai K, Cedars MI, Huddleston HG. Putative role for insulin resistance in depression risk in polycystic ovary syndrome. *Fertil Steril*. 2015 Sep;104(3):707-14.e1. doi: 10.1016/j.fertnstert.2015.05.019. Epub 2015 Jun 19. PubMed PMID: 26054555.

Kolahi L, Asemi N, Mirzaei M, Adibi N, Beiraghdar M, Mehr AM. The relationship between quality of life and coping strategies in polycystic ovary syndrome patients. *Adv Biomed Res*. 2015 Aug 10;4:168. doi: 10.4103/2277-9175.162545. eCollection 2015. PubMed PMID: 26436082; PubMed Central PMCID: PMC4581138.

Lara LA, Ramos FK, Kogure GS, Costa RS, Silva de Sá MF, Ferriani RA, dos Reis RM. Impact of Physical Resistance Training on the Sexual Function of Women with Polycystic Ovary Syndrome. *J Sex Med*. 2015 Jul;12(7):1584-90. doi: 10.1111/jsm.12909. Epub 2015 May 18. PubMed PMID: 25982537.

McCook JG, Bailey BA, Williams SL, Anand S, Reame NE. Differential Contributions of Polycystic Ovary Syndrome (PCOS) Manifestations to Psychological Symptoms. *J Behav Health Serv Res*. 2015 Jul;42(3):383-94. doi: 10.1007/s11414-013-9382-7. PubMed PMID: 24390359.

Ozcan Dag Z, Oguzturk O, Isik Y, Turkel Y, Bulcun E. Personality profile in patients with polycystic ovary syndrome. *Gynecol Endocrinol*. 2015 Jul;31(7):540-2. doi: 10.3109/09513590.2015.1018162. Epub 2015 Apr 17. PubMed PMID: 25884894.

Palomba S, Santagni S, Falbo A, La Sala GB. Complications and challenges associated with polycystic ovary syndrome: current perspectives. *Int J Womens Health*. 2015 Jul 31;7:745-63. doi: 10.2147/IJWH.S70314. eCollection 2015. Review. PubMed PMID: 26261426; PubMed Central PMCID: PMC4527566.

Podfigurna-Stopa A, Luisi S, Regini C, Katulski K, Centini G, Meczekalski B, Petraglia F. Mood disorders and quality of life in polycystic ovary syndrome. *Gynecol Endocrinol*. 2015 Jun;31(6):431-4. doi: 10.3109/09513590.2015.1009437. Epub 2015 Jul 23. PubMed PMID: 26204044.

Podfigurna-Stopa A, Luisi S, Regini C, Katulski K, Centini G, Meczekalski B, Petraglia F. Mood disorders and quality of life in polycystic ovary syndrome. *Gynecol Endocrinol*. 2015 Jun;31(6):431-4. doi: 10.3109/09513590.2015.1009437. Epub 2015 Jul 23. PubMed PMID: 26204044.

Rodino IS, Byrne S, Sanders KA. Disordered eating attitudes and exercise in women undergoing fertility treatment. *Aust N Z J Obstet Gynaecol*. 2015 Sep 22. doi: 10.1111/ajo.12407. [Epub ahead of print] PubMed PMID: 26391326.

Sayyah-Melli M, Alizadeh M, Pourafkary N, Ouladsahebmadarek E, Jafari-Shobeiri M, Abbassi J, Kazemi-Shishvan MA, Sedaghat K. Psychosocial Factors Associated with Polycystic Ovary Syndrome: a Case Control Study. *J Caring Sci*. 2015 Sep 1;4(3):225-31. doi: 10.15171/jcs.2015.023. eCollection 2015. PubMed PMID: 26464839; PubMed Central PMCID: PMC4591610.

Watrowski R, Rohde A, Maciejewska-Jeske M, Meczekalski B. Hormonal and psychosocial correlates of psychological well-being and negative affectivity in young gynecological-endocrinological patients. *Gynecol Endocrinol*. 2015 Jul 14:1-4. [Epub ahead of print] PubMed PMID: 26165561.

PCOS Thyroid disease

Chandeying P, Pantasri T. Prevalence of conditions causing chronic anovulation and the proposed algorithm for anovulation evaluation. *J Obstet Gynaecol Res*. 2015 Jul;41(7):1074-9. doi: 10.1111/jog.12685. Epub 2015 Mar 15. PubMed PMID: 25772812.

Trummer C, Schwetz V, Giuliani A, Obermayer-Pietsch B, Lerchbaum E. Impact of elevated thyroid-stimulating hormone levels in polycystic ovary syndrome. *Gynecol Endocrinol*. 2015 Oct;31(10):819-23. doi: 10.3109/09513590.2015.1062864. Epub 2015 Jul 20. PubMed PMID: 26190535.

Watrowski R, Rohde A, Maciejewska-Jeske M, Meczekalski B. Hormonal and psychosocial correlates of psychological well-being and negative affectivity in young gynecological-endocrinological patients. *Gynecol Endocrinol*. 2015 Jul 14:1-4. [Epub ahead of print] PubMed PMID: 26165561.

PCOS Infertility

Aghssa MM, Tarafdari AM, Tehraninejad ES, Ezzati M, Bagheri M, Panahi Z, Mahdavi S, Abbasi M. Optimal cutoff value of basal anti-mullerian hormone in iranian infertile women for prediction of ovarian hyper-stimulation syndrome and poor response to stimulation. *Reprod Health*. 2015 Sep 10;12:85. doi: 10.1186/s12978-015-0053-4. PubMed PMID: 26357853; PubMed Central PMCID: PMC4565016.

Alebić MŠ, Stojanović N, Duhamel A, Dewailly D. The phenotypic diversity in per-follicle anti-Müllerian hormone production in polycystic ovary syndrome. *Hum Reprod*. 2015 Aug;30(8):1927-33. doi: 10.1093/humrep/dev131. Epub 2015 Jun 4. PubMed PMID: 26048913.

Anjali G, Kaur S, Lakra R, Taneja J, Kalsey GS, Nagendra A, Shrivastav TG, Gouri Devi M, Malhotra N, Kriplani A, Singh R. FSH stimulates IRS-2 expression in human granulosa cells through cAMP/SP1, an inoperative FSH action in PCOS patients. *Cell Signal*. 2015 Dec;27(12):2452-66. doi: 10.1016/j.cellsig.2015.09.011. Epub 2015 Sep 24. PubMed PMID: 26388164.

Carmina E. Reproductive System Outcome Among Patients with Polycystic Ovarian Syndrome. *Endocrinol Metab Clin North Am*. 2015 Dec;44(4):787-97. doi: 10.1016/j.ecl.2015.07.006. Epub 2015 Aug 24. Review. PubMed PMID: 26568493.

Churchill SJ, Wang ET, Bhasin G, Alexander C, Bresee C, Pall M, Azziz R, Mathur R, Pisarska MD. Basal metabolic rate in women with PCOS compared to eumenorrhic controls. *Clin Endocrinol (Oxf)*. 2015 Sep;83(3):384-8. doi: 10.1111/cen.12740. Epub 2015 Mar 5. PubMed PMID: 25660380.

Dasgupta S, Dutta J, Annamaneni S, Kudugunti N, Battini MR. Association of vitamin D receptor gene polymorphisms with polycystic ovary syndrome among Indian women. *Indian J Med Res*. 2015

Sep;142(3):276-85. doi: 10.4103/0971-5916.166587. PubMed PMID: 26458343; PubMed Central PMCID: PMC4669862.

De Frène V, Verhofstadt L, Lammertyn J, Stuyver I, Buysse A, De Sutter P. Quality of Life and Body Mass Index in Overweight Adult Women with Polycystic Ovary Syndrome During a Lifestyle Modification Program. *J Obstet Gynecol Neonatal Nurs*. 2015 Sep-Oct;44(5):587-99. doi: 10.1111/1552-6909.12739. Epub 2015 Aug 18. PubMed PMID: 26284937.

González F. Nutrient-Induced Inflammation in Polycystic Ovary Syndrome: Role in the Development of Metabolic Aberration and Ovarian Dysfunction. *Semin Reprod Med*. 2015 Jul;33(4):276-86. doi: 10.1055/s-0035-1554918. Epub 2015 Jul 1. PubMed PMID: 26132932.

Hosseini Rashidi B, Behrouzi Lak T, ShahrokhTehrani E, Davari Tanha F. Fixed versus Flexible Gonadotropin Releasing Hormone Antagonist Protocol in Controlled Ovarian Stimulation for In Vitro Fertilization in Women with Polycystic Ovary Syndrome. *J Family Reprod Health*. 2015 Sep;9(3):141-6. PubMed PMID: 26622314; PubMed Central PMCID: PMC4662759.

Huang X, Wang P, Tal R, Lv F, Li Y, Zhang X. A systematic review and meta-analysis of metformin among patients with polycystic ovary syndrome undergoing assisted reproductive technology procedures. *Int J Gynaecol Obstet*. 2015 Nov;131(2):111-6. doi: 10.1016/j.ijgo.2015.04.046. Epub 2015 Jul 23. Review. PubMed PMID: 26304048.

Kahyaoglu I, Yilmaz N, Timur H, Inal HA, Erkaya S. Granulocyte colony-stimulating factor: A relation between serum and follicular fluid levels and in-vitro fertilization outcome in patients with polycystic ovary syndrome. *Cytokine*. 2015 Jul;74(1):113-6. doi: 10.1016/j.cyto.2014.09.002. Epub 2014 Sep 23. Review. PubMed PMID: 25258001.

Kriseman M, Mills C, Kovanci E, Sangi-Haghepeykar H, Gibbons W. Antimullerian hormone levels are inversely associated with body mass index (BMI) in women with polycystic ovary syndrome. *J Assist Reprod Genet*. 2015 Sep;32(9):1313-6. doi: 10.1007/s10815-015-0540-0. Epub 2015 Aug 4. PubMed PMID: 26238387; PubMed Central PMCID: PMC4595400.

Kuang H, Jin S, Thomas T, Engmann L, Hansen KR, Coutifaris C, Casson P, Christman G, Alvero R, Santoro N, Eisenberg E, Diamond MP, Legro RS, Zhang H; Reproductive Medicine Network. Predictors of participant retention in infertility treatment trials. *Fertil Steril*. 2015 Nov;104(5):1236-1243.e2. doi: 10.1016/j.fertnstert.2015.08.001. Epub 2015 Sep 3. PubMed PMID: 26354094; PubMed Central PMCID: PMC4630082.

Kushnir VA, Halevy N, Barad DH, Albertini DF, Gleicher N. Relative importance of AMH and androgens changes with aging among non-obese women with polycystic ovary syndrome. *J Ovarian Res*. 2015 Jul 9;8:45. doi: 10.1186/s13048-015-0175-x. PubMed PMID: 26156856; PubMed Central PMCID: PMC4496928.

Lebbi I, Ben Temime R, Fadhlou A, Feki A. Ovarian Drilling in PCOS: Is it Really Useful? *Front Surg*. 2015 Jul 17;2:30. doi: 10.3389/fsurg.2015.00030. eCollection 2015. Review. PubMed PMID: 26236709; PubMed Central PMCID: PMC4505069.

Legro RS, Dodson WC, Kris-Etherton PM, Kunselman AR, Stetter CM, Williams NI, Gnatuk CL, Estes SJ, Fleming J, Allison KC, Sarwer DB, Coutifaris C, Dokras A. Randomized Controlled Trial of Preconception Interventions in Infertile Women With Polycystic Ovary Syndrome. *J Clin Endocrinol Metab*. 2015 Nov;100(11):4048-58. doi: 10.1210/jc.2015-2778. Epub 2015 Sep 24. PubMed PMID: 26401593.

Meczekalski B, Nawrot R, Nowak W, Czyzyk A, Kedzia H, Gozdzicka-Jozefiak A. Study on the zona pellucida 4 (ZP4) gene sequence and its expression in the ovaries of patients with polycystic ovary syndrome. *J Endocrinol Invest*. 2015 Jul;38(7):791-7. doi: 10.1007/s40618-015-0260-4. Epub 2015 Mar 5. PubMed PMID: 25740067; PubMed Central PMCID: PMC4465666.

Moini A, Ahmadi F, Jahangiri N, Ahmadi J, Akhoond MR. A randomized controlled trial evaluating the effect of ethinyl estradiol during clomiphene citrate cycles among women with polycystic ovary syndrome. *Int J Gynaecol Obstet*. 2015 Nov;131(2):129-32. doi: 10.1016/j.ijgo.2015.06.032. Epub 2015 Sep 8. PubMed PMID: 26391671.

Nestler JE, Unfer V. Reflections on inositol(s) for PCOS therapy: steps toward success. *Gynecol Endocrinol*. 2015 Jul;31(7):501-5. doi: 10.3109/09513590.2015.1054802. Epub 2015 Jul 15. PubMed PMID: 26177098.

Randriamboavonjy V, Mann WA, Elgheznawy A, Popp R, Rogowski P, Dornauf I, Dröse S, Fleming I. Metformin reduces hyper-reactivity of platelets from patients with polycystic ovary syndrome by improving mitochondrial integrity. *Thromb Haemost*. 2015 Aug 31;114(3):569-78. doi: 10.1160/TH14-09-0797. Epub 2015 May 21. PubMed PMID: 25993908.

Sundvall L, Kirkegaard K, Ingerslev HJ, Knudsen UB. Unaltered timing of embryo development in women with polycystic ovarian syndrome (PCOS): a time-lapse study. *J Assist Reprod Genet*. 2015 Jul;32(7):1031-42. doi: 10.1007/s10815-015-0488-0. Epub 2015 May 1. PubMed PMID: 25925351; PubMed Central PMCID: PMC4531875.

Tavakolian Arjmand A, Nouri M, Tavakolian Arjmand S. Surprisingly low infertility rate in married type 2 diabetic women: A rather curious paradox to the current opinion of insulin resistance as the joint pathogenesis of poly cystic ovary syndrome and type 2 diabetes mellitus. *Diabetes Metab Syndr*. 2015 Oct-Dec;9(4):201-4. doi: 10.1016/j.dsx.2015.08.007. Epub 2015 Aug 22. PubMed PMID: 26364227.

PCOS Uterus/Endometrium

Bae SA, Joo JK, Choi JR, Kim SS, Lee KS. Clinical outcomes of three- or five-day treatment with clomiphene citrate combined with gonadotropins and a timed intercourse cycle in polycystic ovary syndrome patients. *Clin Exp Reprod Med*. 2015 Sep;42(3):106-10.

Baqing MA, Brotherton J. Spontaneous Ruptured Uterus in an Adolescent With Polycystic Ovarian Syndrome and Endometrial Hyperplasia. *J Minim Invasive Gynecol*. 2015 Sep-Oct;22(6):1109-12.

Cui P, Li X, Wang X, Feng Y, Lin JF, Billig H, Shao R. Lack of cyclical fluctuations of endometrial GLUT4 expression in women with polycystic ovary syndrome: Evidence for direct regulation of GLUT4 by steroid hormones. *BBA Clin*. 2015 Aug 28;4:85-91.

Deligeoroglou EK, Creatsas GK. Dysfunctional uterine bleeding as an early sign of polycystic ovary syndrome during adolescence. *Minerva Ginecol*. 2015 Aug;67(4):375-81.

Rashidi M, Najmi Z, Mobasseri A. Advantages of Recombinant Follicle-Stimulating Hormone over Human Menopausal Gonadotropin in Intrauterine Insemination: A Randomized Clinical Trial in Polycystic Ovary Syndrome-Associated Infertility. *Gynecol Obstet Invest*. 2015 Jul 23. [Epub ahead of print]