

PCOS



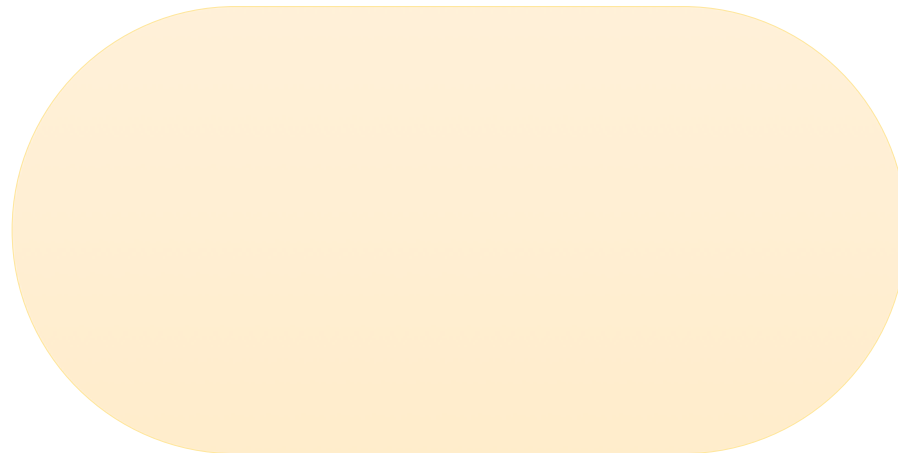
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EBP vs EIP


What I learned about Research Doing my Masters in Pain Management

- My Unfounded Conspiracy Theory about Big Pharma
- A Researcher is not a Clinician
- Describe largest group possible vs Individualized Treatment
 - time crunch
 - “Laziness”
 - Back to EIP
 - Guidelines





Back to TCM Basics

- Two Basic Concepts of TCM
 - Excess and Deficiency
 - Heat
 - Blood Stasis
- 

Qi and Yin and Yang

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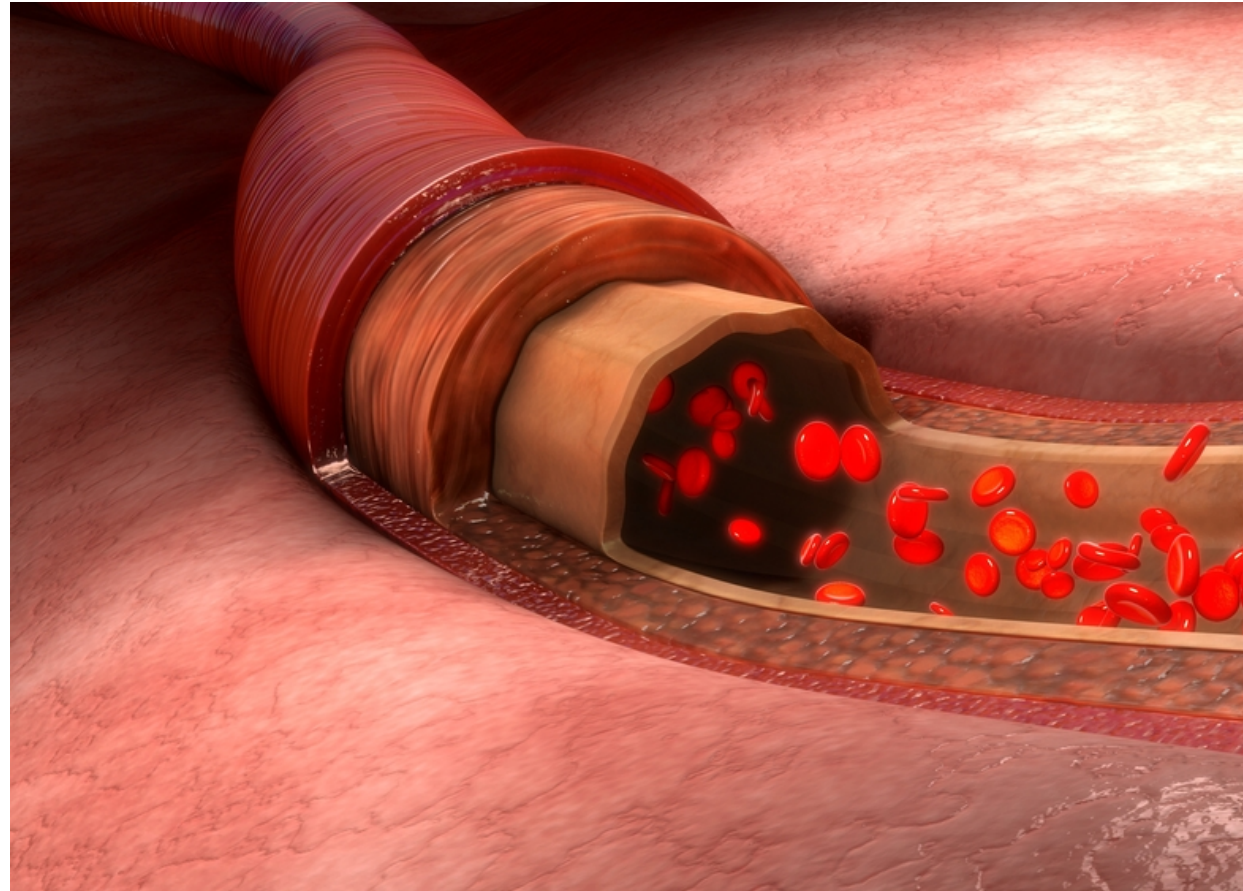
- Antibiotics in China story
- Infection vs Inflammation
 - allergen
 - waste products of metabolism
- 3 ways to expel Heat in TCM

Blood Stasis

Western actions of Blood movers

- improve dynamics of blood flow
 - dilate peripheral, coronary, cerebral, renal and mesenteric
- improve microcirculation
 - coronary heart disease, angina, endometriosis, chronic hepatitis, hepatic cirrhosis and scleroderma
- improve concentration, coagulation and accumulation of blood by preventing thrombosis and platelet aggregation
- influence connective tissue
 - skin warts, burn scars, adhesions
- readjust cellular and humoral immunity
- analgesic effect
- increase uterine contractions
- combat inflammation and infections

- **Maciocia Gyne Text**





How PCOS is diagnosed?

Ovulation problems

- Anovulatory
- Long time between ovulations
- Ovulate immature eggs

LH – FSH ratio

- 2:1

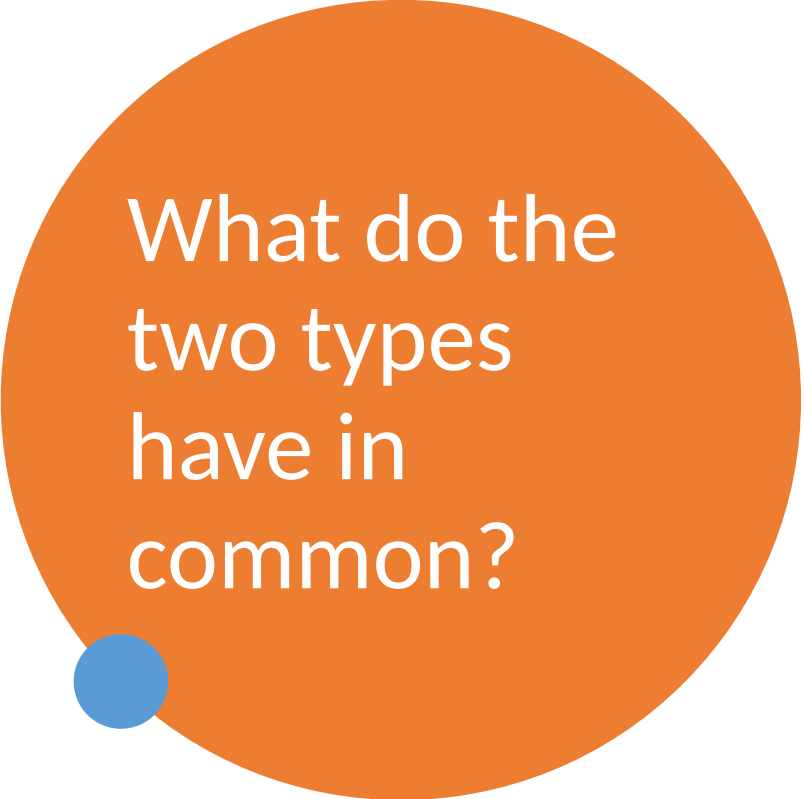
Associated

- Acne
- Trouble getting pregnant
- Higher testosterone levels

Two Types of PCOS

- Thin and Heavy
 - Heavy
 - Diabetes-ish blood sugar levels
 - High BMI
 - BMI and PCOS research
 - Thin
 - normal blood sugar levels
 - Normal BMI's
 - Fibro cystic breasts
- Metformin
 - Lowers blood sugar
- Tailoring treatment for PCOS phenotypes
 - <https://pubmed.ncbi.nlm.nih.gov/33382003/>





What do the
two types
have in
common?

- Link in TCM
 - Heat/DH/Inflammation
 - Acne
 - Cysty
 - BM's





Effectiveness of Acupuncture treating PCOS

- Jo J, Lee YJ, Lee H. Acupuncture for polycystic ovarian syndrome: A systematic review and meta-analysis. *Medicine (Baltimore)*. 2017
 - low level of evidence that acupuncture more likely to improve ovulation rate (MD 0.35, 95% CI: 0.14-0.56) and menstruation rate (MD 0.50, 95% CI: 0.32-0.68) compared with no acupuncture.
 - We found statistically significant pooled benefits of acupuncture treatment as an adjunct to medication in luteinizing hormone (LH), LH/follicular stimulating hormone (FSH) ratio, testosterone, fasting insulin, and pregnancy rates, but the level of evidence was low/very low.



More Recent

- Wu J, Chen D, Liu N. Effectiveness of acupuncture in polycystic ovary syndrome: A systematic review and meta-analysis of randomized controlled trials. 2020
 - There was insufficient evidence to support that acupuncture could promote live birth, pregnancy, and ovulation.
 - However, acupuncture could promote the recovery of menstrual cycles as well as downregulate the levels of LH and testosterone in patients with PCOS.

Acupuncture and Blood Sugar

Acupuncture therapy protects PCOS patients with diabetes by regulating miR-32-3p/PLA2G4A pathway

- “MiR-32-3p regulates PLA2G4A protein expression, which is vital in the pathogenesis of PCOS and diabetes. Further, this research proved that the potential mechanism of traditional acupuncture treatment may be the downregulation of miR-32-3p, thus inhibiting PCOS and diabetes progression.”
- Acupuncture lowers blood sugar
 - Cautions taught in TCM school
 - People with blood sugar disorders
 - Not having eaten in a long time
- BMI + Menses


<https://pubmed.ncbi.nlm.nih.gov/34539997/>



Acupuncture and Chronic Inflammation Associated Disorders

- Research Review
 - Clinical Events Associated with Acupuncture Intervention for the Treatment of Chronic Inflammation Associated Disorders
- Asthma – as effective as oral cetirizine hydrochloride treatment
- Atherosclerosis - Limited troponin I release, reduction in ICU stay time, and decreased use of inotropic agents
- RA - Interleukin-6 and malondialdehyde levels decreased
- Crohn's disease - Decrease in the ratio of Th17 and Treg cells

<https://www.hindawi.com/journals/mi/2020/2675785/tab2/>



Acupuncture
alone often not
enough

- Lifestyle changes
 - Listening
 - Thin vs heavy
- Diet Changes
 - Again Thin vs Heavy
 - BM's
- Herbs
 - Tailored to type of inflammatory responses
 - Infection
 - Allergen
 - Local damage
 - Waste products of metabolism

References

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- Wu J, Chen X. Acupuncture therapy protects PCOS patients with diabetes by regulating miR-32-3p/PLA2G4A pathway. *Am J Transl Res*. 2021 Aug 15;13(8):8819-8832. PMID: 34539997; PMCID: PMC8430091.