

Unravelling the triangular relationship between polycystic ovary syndrome, cardiometabolic disease and de novo lipogenesis

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UNRAVELLING THE TRIANGULAR RELATIONSHIP BETWEEN POLYCYSTIC OVARY SYNDROME, CARDIOMETABOLIC DISEASE AND DE NOVO LIPOGENESIS

It's all in the genes

Pomme Simons

Maastricht, 15 juni 2022

1. Polycystic ovary syndrome (PCOS) per se does not lead to coronary artery disease. Rather, de novo lipogenesis seems to be the common denominator for both PCOS and coronary artery disease (*this thesis*).
2. De novo lipogenesis is a major cause of intrahepatic lipid accumulation, but also plays an independent causal role in cardiometabolic disease (*this thesis*).
3. Traditionally, sex hormone-binding globulin (SHBG) is considered a transport protein. However, its function extends beyond that, as it seems to play a causal role in increasing the risk of cardiometabolic disease (*this thesis*).
4. Serum SHBG may be an non-invasive and cost-efficient biomarker of de novo lipogenesis (*this thesis*).
5. Progress in the field of PCOS has been slow because consensus on its diagnostic criteria requires understanding of its pathophysiology, and vice versa.
6. The promise and perils of mendelian randomization lie dangerously close together, but when well conducted can greatly aid our understanding of causal pathways.
7. Measuring SHBG levels in women with PCOS may guide a clinician's understanding of the primary underlying pathophysiology and allow for a more personalised treatment (*impact paragraph*).
8. "In het land der blinden is eenoog koning" (*Desiderius Erasmus*)
9. In de zorg van de 21^e eeuw moet men er soms aan herinnerd worden dat overleven enkel zinvol is indien er uitzicht is op leven.
10. "Everything is relative: and only that is absolute" (*Auguste Comte*)