Oxidants and antioxidants as targets for cardiovascular disease prevention: evidence from observational and causal inference studies
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OXIDANTS AND ANTIOXIDANTS AS TARGETS FOR CARDIOVASCULAR DISEASE PREVENTION:
evidence from observational and causal inference studies

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1. Smoking increases antioxidant metabolite levels, but is nevertheless associated with oxidative stress. (this thesis)

2. Dietary antioxidants are unlikely to reduce the risk of developing (ischemic) stroke as they increase antioxidant levels, but maybe not activity. (this thesis)

3. Mitochondrial dysfunction measured in blood, as a cause of increased oxidative stress, is unlikely to be a driver of cerebral vascular disease. (this thesis)

4. High body mass index increases the risk of atherosclerotic cardiovascular disease, and predominantly in people of low socio-economic status (this thesis), indicating that intervention studies might be most effective in these groups.

5. "As chronological age advances, the levels of ROS increase in an attempt to maintain survival, until they betray their original purpose and eventually aggravate, rather than alleviate, the age-associated damage." (Hekimi, Trends Cell Biol, 2011)

6. "Genome-wide association studies are promising resources for powerful Mendelian Randomization investigations" (Burgess, Genet Epidemiol, 2013), although that was not their intended purpose.

7. "Successful Mendelian Randomization studies allow us to approximate causal relationships" (Burgess, Int J Epidemiol, 2015), but results that can only be detected in enormous sample sizes questions the clinical relevance of the result.

8. "The health benefits of antioxidant agents vary based on the oxidative status of each individual" (Thomas Senoner, Nutrients, 2019). Therefore, studying antioxidant effects using a population-based approach is not sufficient to identify the real therapeutic effect.

9. Good writing takes time. "A thought comes when it wants to and not when I wish." (Friedrisch Nietzsche, 1886)

10. "Part of the journey is the end" (Iron Man, 2019) and with an end starts a new beginning.