Outcome of osteoarthritis and arthroplasty from patient perspective to molecular profiling.

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Stellingen behorende bij het proefschrift getiteld:

Outcome of osteoarthritis and arthroplasty from patient perspective to molecular profiling.

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1. Recording the patient's basic levels of resistance and vulnerability over time will improve the prediction of the outcome of an intervention such as arthroplasty. *This thesis.*

2. Long term monitoring of patients after a successful intervention is paramount to detect detrimental (side)-effects as is the case with Metal-on-Metal prostheses. *This thesis.*

3. The short- and long-term success of total joint arthroplasty is reflected by the increased levels of physical activity in patients as compared to the general Dutch population. *This thesis.*

4. Optimal timing of arthroplasty surgery in the context of good physical condition of the patient may prevent worsening of functional status and improve recovery after arthroplasty. *This thesis.*

5. The observation that fatty acids and aspects of the energy cycle reflect the disease status in patients with osteoarthritis indicates possible links with metabolic health. *This thesis.*

6. Metabolic markers are indicative for an overall state of patient vulnerability, thus reflecting development and progression of chronic diseases such as osteoarthritis. *This thesis.*

7. 'With time, interest in adverse reactions declines and there is seldom any serious reanalysis of benefit-risk after several years of marketing. In general, the search for harm induced by a treatment is not pursued with the same vigour as the search for benefit.'
Garattini, S. (2010). Evaluation of Benefit-Risk. PharmacoEconomics 28 (11): 981-986.

8. 'An unacceptable compromise in quality of life represents the main indication for total hip replacement in many individuals presenting today. Thus, only patient-based measures can be used to assess patient's satisfaction with health-related quality of life postoperatively'.
Learmonth, ID et al. (2007). The operation of the century: total hip replacement. The Lancet 370(9597): 1508-1519.

9. 'In primary generalised osteoarthritis there is a recognised link with obesity and a suggested systemic aetiology independent of weight-bearing'.
Plumb, MS et al. (2004). High levels of fat and n-6 fatty acids in cancellous bone in osteoarthritis. Lipids in health & disease 3:12.

10. 'Osteoarthritis is not a homogeneous disease but is in fact highly heterogeneous, characterized by a number of different phenotypes (including a distinct metabolic phenotype), each of which is thought to have different drivers. The various phenotypes of osteoarthritis have important differences, but are likely to share key elements such as ageing, biomechanical factors and metabolic alterations.'
Mobasheri, A et al. (2017). The role of metabolism in the pathogenesis of osteoarthritis. Nature Reviews 13, 302-311.

11. 'The response to [lifestyle] interventions can show marked individual variation. It may become possible to target these interventions to those individuals who will benefit the most when robust biomarkers of the variation become available. For instance, older and more frail people could benefit from more dietary protein to combat traits such as muscle wasting and weakness (sarcopenia), whereas middle-aged people may benefit from less protein to combat cancer.'
Partridge, L et al (2018). Facing up the global challenges of ageing. Nature 561: 45-56.

12. Prevention is better than cure.
Desiderius Erasmus, 1500.
Monitoring of an individual' personal status (as reflected by frailty) may prevent disease, ultimately the goal of health care research.

13. The death of one is a tragedy; the death of a million is a statistic.
Joseph Stalin, Holodomor 1932-1933.
While working with big datasets including data of thousands of patients, we should always keep the individual patient in mind.

14. If you think you are too small to make a difference, try sleeping with a mosquito.
Dalai Lama 2004.
Even a seemingly small contribution to science or society may have a large impact.

15. Take what you need; give what you can.
Levensmotto