Multimodal CT imaging for diagnosis, treatment and prognosis in ischemic stroke

Holswilder, G.

Stellingen behorend bij het proefschrift getiteld

Multimodal CT imaging for diagnosis, treatment and prognosis in ischemic stroke

1. Cardiac and aortic CTA can detect embolic risk sources in TIA and ischemic stroke and potentially change the optimal therapeutic management for secondary stroke prevention. (this thesis)
2. Despite migraine being an important risk factor, there is no evidence for more severe stroke progression or poorer outcome in ischemic stroke patients with migraine versus those without migraine. (this thesis)
3. When dynamic CTA is available, the collateral circulation of acute ischemic stroke patients should be evaluated by three or four strategically timed image-acquisitions to detect good, but slow, collateral filling. (this thesis)
4. Extracranial vascular CTA characteristics aid in predicting endovascular treatment duration and success in reaching the large vessel occlusion, and can be considered when determining the optimal intervention strategy for specific ischemic stroke subgroups. (this thesis)
5. Cardiac and aortic CTA could become standard diagnostic workup in acute ischemic stroke to quickly detect high-risk cardioembolic sources, although cost-effectiveness must be assessed. (Sposato, The Lancet Neurology, 2025)
6. Atherosclerotic plaques in the aorta are most likely a marker of severe atherosclerosis and not a causal factor leading to stroke. (Yoshida, Stroke, 2023)
7. Automated assessment of CTA images with deep learning methods can speed up image analysis, allowing complex vascular characteristics to be considered when determining the most optimal intervention strategy in patients with large vessel occlusion stroke. (Canals, JNIS, 2024)
8. Prediction models should only be developed by researchers when they intend to validate and implement their model into clinical practice.
9. Researchers should recognize that thorough analysis of clinical data often requires extensive methodological expertise; early collaboration with such experts is therefore highly recommended.
10. Working in wildlife rescue might seem the opposite of doing PhD research - one is fast-paced and requires immediate, physical action, while the other takes years to progress from plan to outcome and is primarily a mental challenge. However, both aim to help others, animal or human.