CorFlux - DIGITAL TWIN ANALYSIS FOR IMPROVING THE LIFE EXPECTANCY OF AORTIC ANEURYSM PATIENTS

NEED AND SOLUTION: The incidence of aortic aneurysm is steadily increasing as imaging studies become more common. The diagnosis, treatment and monitoring of aneurysms cause significant costs for healthcare systems and economies. There is no effective risk assessment tool for aortic aneurysms. CorFlux Analysis is a clinical tool that assess the need for treatment of aortic aneurysms. CorFlux is a completely new approach for assessing the criticality of aortic aneurysms. The analysis will enable healthcare professionals to make decisions related to the treatment of aortic aneurysm patients much more accurately than the current practice.

Application

The CorFlux Analysis creates a 3D model of aorta which is further used in creation of a digital twin of the aortic area. Digital twin calculates the probability of rupture of the aortic aneurysm. The result (rupture index) is used to optimize the patient care.

Competitive Advantage

The current methods do not take the structural and functional factors into account in the risk assessment of aortic rupture. CorFlux aortic rupture index has been developed by analyzing human aortic samples. This promises better success in the clinical trials and gives CorFlux a significant competitive advantage.

Market Assessment

The annual costs of monitoring thoracic aortic aneurysms is up to € 1.23 billion alone in the European Economic Area.

IP Status

Based on the FTO analysis (Berggren Oy), only one patent could be a barrier to do business in the US market. The limitation imposed by that patent can be considered in the implementation of the CorFlux software.

International Co-operation

- CorFlux project is making close co-operation with Karolinska Institutet, Stockholm
- CorFlux project co-operates also with SPARK which offers additional international networking possibilities

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