

Left atrial vascular and metabolic remodeling in pig models of atrial fibrillation

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Ph.D. Thesis Propositions

Left atrial vascular and metabolic Remodeling in pig models of atrial fibrillation

1. Atrial fibrillation leads to atrial metabolic and vascular remodeling.
— **This thesis**
2. Key aspects of the early atrial remodeling resemble the adaptive response to exercise training.
— **This thesis**
3. Although atrial metabolism shows several adaptive changes early in the pathogenesis of AF, these changes fall short of restoring the balance between energy consumption and production.
— **This thesis**
4. Loss of atrial contractility in the failing heart will accelerate the development of decompensating heart failure.
— **This thesis**
5. The phenomenon of capillary rarefaction during AF will restrict the ability of the atria to respond to fluctuations in demand.
— **This thesis**
6. After one week of AF, the function of isolated atrial mitochondria is intact, but the cellular capacity for energy production has decreased.
— **This thesis**
7. To prevent AF progression, early (days to weeks), aggressive treatment is vital.
— **This thesis**
8. Disease was a natural process and its symptoms were the reactions of the body to the disease.
— **Hippocrates**
9. Faith is knowledge within the heart, beyond the reach of proof.
— **Khalil Gibran**
10. There is no capital more useful than intellect and wisdom, and there is no indigence more injurious than ignorance and unawareness.
— **Imam Ali bin abi taleb**

Hussein M. Nasrallah
Maastricht, December 2015