Monday, November 20, 2017

EXSU 620

Prepared by: Chantelle Janeiro

List of Topics to Research After Meeting with Dr. Lachapelle on Nov. 11th:

1. Anatomy of the valve
   * what the leaflets look like
   * the anatomical names associated with aortic valve
2. Compare intra-operative versus CT scans for sizing of the valve
   * already found an article from PubMed (NCBI): “Aortic valve annular sizing: intraoperative assessment versus preoperative multidetector computed tomography”. George I, et al. Circ Cardiovasc Imaging. 2017.
3. Can you create a balloon that has a channel running through the middle? (cylinder shape)
4. Compare balloon technique versus using a scope (like the scope that is used in volumetric laser endomicroscopy and tethered capsule endomicroscopy).
5. Relationship between the valve width and the sinotubular junction measurements (remember when Dr. Lachapelle was saying that these two measurements were related to each other by 10%).
6. Where do you need to measure the valve in order to get the best sizing?
7. A way to calculate the perimeter of the valve (since the valve is not a perfect circle).
8. Should the balloon have sensors embedded? If so, what technology is already available?
9. How can you blow up the balloon slowly in increments? (Don’t want to inflate too quickly and hurt the heart valve).
10. Compare angiogram vs. CT vs. MRI
11. What is the technology behind the existing CoreValve that is available right now?
12. Research what Dr. Piazza and Dr. Lachapelle have already published.