



*Case #764*

## **Using Artificial Intelligence to Detect Endoleaks**

Abdominal aortic aneurysm (AAA) is in the top 20 causes of death in the United States and each year approximately 10,000 deaths are attributed to a ruptured AAA. Surgery is the only treatment and endovascular abdominal aortic aneurysm repair (EVAR) accounts for over 75% of elective surgeries and an increasing amount of emergency AAA repairs for ruptured AAAs. After EVAR surgery, lifelong surveillance is required and there is a critical unmet need to improve detection of endoleaks as the number of patients and subsequent complications increases. This technology is a machine learning algorithm to detect endoleaks, currently with near radiologist accuracy that works in conjunction with CT scanner software to detect the endoleak, measure its volume, measure the aneurysm volume and diameter, and determine the source of the leak. This technology will work for all types of endoleaks and can potentially be used to detect multiple aortic pathologies such as dissection and atherosclerosis.

### **Applications:**

- Endoleak diagnosis and monitoring.
- Aortic pathology detection.

### **Advantages:**

- Improved leak detection, especially with small, hard to see endoleaks.
- Superior clinical insight through trend highlighting and tracking images over time.
- Time savings via a summary insight instead of manual review.

### **Intellectual Property and Development Status:**

US Provisional application 62/830,982

Looking for both licensing and industry partners for further product development

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