

# Evaluation of aortic graft infection diagnostic criteria

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Aortic graft infection is known to be a very complex pathology. Establishing a timely diagnosis makes it even more challenging. Lyons et al have recently proposed a set of diagnostic criteria, which this study aims to evaluate (attachment 1). The proposed diagnostic criteria were applied retrospectively to an existing database of patients with Aortic graft infections treated at St Thomas Hospital between 2001 and 2015. 48 patients were included, electronic documentation and imaging were reviewed. Clinical, Radiological and Laboratory, each consisting of major and minor criteria. Aortic graft infection was diagnosed in the presence of a single Major criterion, plus any other criterion (Major or Minor) from another category.

## Results

Of 48 analyzed patients, 45 met the diagnostic criteria, having scored for at least one major criteria and one more criteria from another category.

Analysis of individual diagnostic criteria as a percentage of all patients revealed that 90% had raised inflammatory markers, 73% - minor radiological features like suspicious peri-graft gas/fluid/soft tissue inflammation/aneurysms expansion/suspicious metabolic activity etc., 50% - perigraft fluid on the CT scan, 42% presented with a fistula.

## Discussion and Conclusion

Diagnostic criteria proposed by Lyons et al would have diagnosed 93.8% of the patients that were treated for Aortic graft infections at St Thomas Hospital. This study proves that it is a valuable tool in standardizing the diagnosis and is therefore a step forwards towards improving care for patients suffering from this serious condition. The validity of these diagnostic criteria should next be evaluated in a prospective multicenter study.