

### Introduction

Large vessel vasculitis (LVV) is the most common form of primary systemic vasculitis encompassing Takayasu's arteritis (TA), Giant Cell Arteritis (GCA) and idiopathic aortitis. These patients are at increased risk of abdominal aortic aneurysm (AAA) formation that without recognition and appropriate management can lead to rupture. LVV can present with non-specific features resulting in the disease often going undiagnosed and progressing insidiously to a chronic phase characterised by inflammatory changes in the aorta including aneurysm formation and rupture. Thus in cases of AAA repair it is of utmost importance a histological specimen is examined in order to identify a potential indolent LVV.

### Aims

The aim of this study was to assess for the presence of LVV in the histological specimens of patients undergoing elective and emergency open AAA repair in our institution.

### Method

A retrospective study was performed using a database of all open emergency and elective AAA repairs in a large vascular centre over a four year period; 2015-2018 inclusive. Each operative case was assessed to determine whether or not a histological specimen from the aneurysm sac was obtained intraoperatively. In cases where a histological specimen was obtained the histology report was then interrogated to assess for the presence or absence of features of LVV.

### Results

In total 91 patients underwent open AAA repair over the studied four year period. Of these only 13 (14%) had a histological specimen sent. 11 (85%) of the histological specimens were from emergency cases of acute AAA rupture. There was no evidence of LVV in any of the histological specimens sent. Of note, one AAA repair was performed in a patient with PET CT diagnosed inflammatory aortitis however there was no histological specimen sent.

### Conclusion

This study demonstrates the low percentage of histological specimens sent during AAA repair in our institution. This appears a wasted opportunity. We highlight the significant unmet need for a consensus guideline which includes the requirement of a histological specimen in all cases of AAA repair acknowledging that LVV is a multisystem disease with the potential for complications at other sites.