



Incidence and Causes of Aneurysm Growth Following Endovascular Sealing of Abdominal Aortic Aneurysms

Ruwanka Uhanowita Marage

University of Liverpool, UK

Abstract:

Introduction:

The Endovascular Sealing procedure (EVAS) was introduced to overcome the occurrence of endoleaks, which were a limitation to the well-established Endovascular Repair procedure (EVAR) for Abdominal Aortic Aneurysm Repair.¹ There is limited data on the outcomes of EVAS. Aneurysm growth is thought to occur in the presence of aneurysm pressurisation. In the EVAR procedure, this pressure elevates in the presence of endoleaks.² Therefore it can be extrapolated that if there is aneurysm growth in EVAS, there may be increased aneurysmal pressure, suggesting poor clinical outcome.

Aims/Objectives:

To analyse the incidence of aneurysm growth following Endovascular Aneurysm Sealing (EVAS) and its relationship with adherence to the instructions for use (IFU) of the Nellix endograft.

Patients and Methods:

This was a retrospective observational study, which observed the clinical outcomes of patients that had an elective infra-renal EVAS procedure performed at the Royal Liverpool Hospital between December 2013 and January 2018. The primary outcome measure was the occurrence of aneurysm growth post-EVAS. Aneurysm growth was defined as a 5% increase in the aortic volume between the renal arteries and the aortic bifurcation from the 1 month scan to any subsequent annual scans.

Results:

71 patients (55 men) with a mean (standard deviation) age 76 (6) were eligible for inclusion in this study. Aneurysm growth was observed in 8/19 (42%) within IFU and 14/52 (27%) outside IFU ($P = 0.35$). There was no relationship between aneurysm growth and adherence to IFU. Among the patients with aneurysm growth, the



median (range) increase in Abdominal Aortic Aneurysm (AAA) volume was 11 (5-20)%.

Discussion

AAA growth occurs in a significant proportion of patients at 1-year post EVAS, and is not associated with adherence to IFU. Longer follow-up on a larger sample size is essential to understand the long-term clinical outcomes following EVAS.

Keywords: Aneurysm rupture, Endovascular procedures, Nellix System, Vascular Surgical Intervention

Biography:

Ruwanka Uhanowita Marage is a 5th year medical student from the University of Liverpool. She has carried out various research projects and is interested in a future career in vascular surgery. She has presented her work at both a regional and national level and is the Vice-Chair for an upcoming conference she has helped to organise. She has previously been Vice-President of the Liverpool Cardiovascular and Thoracic Society, Treasurer to Liverpool OSCE society and Charity Representative to Liverpool Dermatological Society. She shows a great commitment to teaching, having carried out several lectures and been part of a peer-mentoring programme. As well as that, she has acted as an examiner for a series of mock OSCEs. She is an enthusiastic pianist who enjoys baking in her free time.

Publication of speakers:

1. Weller A, Shah A, Seyed A, Touska P, Sayer C, Vlahos I. Nellix Endovascular

International Conference on cardiology | 19-20, March 2020 | London, UK

Citation: Ruwanka Uhanowita Marage ; Incidence and Causes of Aneurysm Growth Following Endovascular Sealing of Abdominal Aortic Aneurysms; Cardiology Summit on 2020; March 2020 | London, UK