

**HEART CONGRESS, VASCULAR BIOLOGY AND SURGEON'S MEETING**

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**The management of aortic graft infection****Nicholas M Price**

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Aortic graft and endograft infection (AGI) complicates approximately 1-4% of deployments. At present, no universally accepted case definition exists and clinical guidelines that are underpinned by high-quality published evidence are severely lacking. There is general consensus that AGI is diagnosed by a combination of clinical, radiological and laboratory findings. However, in the current literature, microbiological details are brief and in a substantial number of cases there is no positive microbiology available to base targeted antimicrobial treatment upon. Published radiological data are mainly descriptive and the utility of various new diagnostic imaging modalities remains unclear. The fundamental tenets of management involve removal of the infected device, revascularization and antimicrobial therapy. However, surgical explantation carries a mortality of 18-30% and if an infected device is left in situ, mortality approaches 100% within 2 years. The best published surgical studies are mostly large case series but there are no randomised controlled trials evaluating the optimum surgical strategies. In addition, no well-designed trials of the ideal antimicrobial agents, administration route and treatment duration have been conducted. As a consequence, diagnosis and treatment is both extremely challenging and inconsistent, with highly variable and often poor outcomes. A multidisciplinary model of care is essential and this seminar is aimed at vascular surgeons, microbiologists and infectious diseases physicians. With reference to the limited published evidence, approaches to diagnosis and treatment of AGI will be discussed. Towards the development of evidence-based clinical guidelines, a proposed formal case definition will be presented, providing a consistent diagnostic standard that is essential for clinical trial design and meaningful comparison between various management strategies. In addition to highlighting areas for future research, a recently launched international, multicentre AGI service evaluation database will be introduced.

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