

The Routine Use of a Negative Pressure Incision Management System in Vascular Surgery: A Case Series

Authors : Hansraj Bookun, Angela Tan, Rachel Xuan, Linheng Zhao, Kejia Wang, Animesh Singla, David Kim, Christopher Loupos

Abstract : Introduction: Incisional wound complications in vascular surgery patients represent a significant clinical and econometric burden of morbidity and mortality. The objective of this study was to trial the feasibility of applying the Prevena negative pressure incision management system as a routine dressing in patients who had undergone arterial surgery. Conventionally, Prevena has been applied to groin incisions, but this study features applications on multiple wound sites such as the thigh or major amputation stumps. Method: This was a cross-sectional observational, single-centre case series of 12 patients who had undergone major vascular surgery. Their wounds were managed with the Prevena system being applied either intra-operatively or on the first post-operative day. Demographic and operative details were collated as well as the length of stay and complication rates. Results: There were 9 males (75%) with mean age of 66 years and the comorbid burden was as follows: ischaemic heart disease (92%), diabetes (42%), hypertension (100%), stage 4 or greater kidney impairment (17%) and current or ex-smoking (83%). The main indications were acute ischaemia (33%), claudication (25%), and gangrene (17%). There were single instances of an occluded popliteal artery aneurysm, diabetic foot infection, and rest pain. The majority of patients (50%) had hybrid operations with iliofemoral endarterectomies, patch arterioplasties, and further peripheral endovascular treatment. There were 4 complex arterial bypass operations and 2 major amputations. The mean length of stay was 17 ± 10 days, with a range of 4 to 35 days. A single complication, in the form of a lymphocoele, was encountered in the context of an iliofemoral endarterectomy and patch arterioplasty. This was managed conservatively. There were no deaths. Discussion: The Prevena wound management system shows that in conjunction with safe vascular surgery, absolute wound complication rates remain low and that it remains a valuable adjunct in the treatment of vasculopathies.

Keywords : wound care, negative pressure, vascular surgery, closed incision

Conference Title : ICCSCTD 2019 : International Conference on Cardiac Surgery and Cardiac Disease Therapies

Conference Location : Tokyo, Japan

Conference Dates : December 04-05, 2019