

4th International Conference on **Clinical & Experimental Cardiology** April 14-16, 2014 Hilton San Antonio Airport, TX, USA

Contemporary approach to diagnosis and management of cardiovascular implantable electronic device infections

M. Rizwan Sohail Mayo Clinic College of Medicine, USA

Infection is a serious complication of Cardiovascular Implantable Electronic Device (CIED) therapy that necessitates removal of entire device and prolonged systemic antimicrobial therapy. Despite improvement in implantation techniques, rising volume of device implantation and widespread use of perioperative antibiotic prophylaxis, rate of CIED infection is rising. Cardiac device infections are associated with significant morbidity, mortality and financial cost. Majority of these device infections are caused by staphylococci. These organisms create a biofilm on device surface that leads to unique diagnostic and management challenges. Blood cultures should be obtained in all patients with suspected CIED infection and transesophageal echocardiography (TEE) should be pursued in those with evidence of bloodstream infection to look for any evidence of CIED-associated endocarditis. For patients with confirmed CIED infection, complete device removal should be arranged as soon as possible. CIED leads can be extracted in majority of patients with percutaneous approach. However, for patients with other indications for cardiac surgery, such as cardiac abscess or valve dehiscence, or presence of large (>3cm) CIED lead vegetation, cardiac surgery should be consulted for lead removal. Duration of antimicrobial therapy depends on clinical presentation of CIED infection, ranging from 2 weeks for simple pocket infection to up to 6 weeks for CIED associated endocarditis. Among patients with CIED pocket infection or uncomplicated bloodstream infection, a new device can be implanted once blood cultures are negative for at least 72 hours. However, for patients with CIED associated endocarditis, a delay of 2 weeks between removal of infected device and implantation of replacement device is recommended.

Biography

M. Rizwan Sohail is an Assistant Professor of Medicine at Mayo Clinic College of Medicine. He has a joint appointment in the Divisions of Infectious Diseases and Cardiovascular Diseases. He has published over 50 papers in peer-reviewed medical journals. His ongoing research work is primarily funded by the American Heart Association.

sohail.muhammad@gmail.com