conferenceseries.com

7th World Congress on

Healthcare & Technologies

September 26-27, 2016 London, UK

RESTERNOTOMY FOLLOWING STERNAL BONE CEMENT IMPLANTATION: A GREAT CHALLENGE FOR CARDIAC SURGEONS

<u>Ahmadreza Zarifian</u>°, AliAsghar Moeinipour°, Mohammad Sobhan Sheikh Andalibi°, Alireza Sepehri Shamloo°, Alireza Abdollahi Moghadam° and Hamid Hoseinikhah°

°Mashhad University of Medical Sciences, Iran

Background & Objective: Median sternotomy and resternotomy is the standard surgical approach for coronary artery bypass grafting (CABG) as well as valvular and congenital heart disease. Unlike advancements in cardiac surgical procedures, there seems to be a lack of innovation in sternal closure techniques. Several techniques have been suggested for sternal closure including wiring, interlocking, plate and screws, and bone cementation, but none of them achieved widespread acceptability. Moreover, wiring and plating techniques are associated with serious post-operative complications, especially in high-risk patients. The aim of this study is showcasing the most difficult challenges with resternotomy in a patient with a history of previous cardiac surgery that was closed with biologic bone cements.

Case Report: Herein, we present the case of a 56-year-old woman with a history of previous sternotomy for mitral and aortic valve replacement, which was closed using biologic bone cement due to her osteopenic sternum. She was referred to an emergency department with dyspnea, 4 years after her operation. Later evaluations revealed a massive thrombosis at the mitral valve. Therefore, she underwent emergent cardiac surgery with a very difficult resternotomy under femoral cannulation support.

Conclusion: Resternotomy in patients with previous sternotal closure using Kryptonite bone cements or calcium phosphate cements (CPC) is safe and can be done similar to other cardiac reoperations. Ostensibly, the reoperation in these patients does not increase the risk of bleeding, morbidity, or mortality.

Biography

Ahmadreza Zarifian is a medical intern at Mashhad University of Medical Sciences (MUMS) and is currently completing his practices for Medical Doctorate. With special interest in medical and clinical research, he has collaborated several studies and authored a handful of papers and publications in the fields of Internal Medicine, Cardiology, Surgical Techniques, Orthopedics, and Social and Community Medicine. He was chosen as the premier student researcher of the MUMS for 3 consecutive years (2013-15). Presently, he has been working as the head of Research Projects Unit at Student Research Committee of MUMS for 3 years.

zarifianar891@mums.ac.ir

Notes: