

Introduction

- 1) Infective endocarditis (IE) is a rare complication following transcatheter edge-to-edge mitral leaflet repair (TMVr) device placement, as is IE due to *Streptococcus gordonii*.
- 2) This is the first case of *S. gordonii* IE in a patient with a MitraClip.

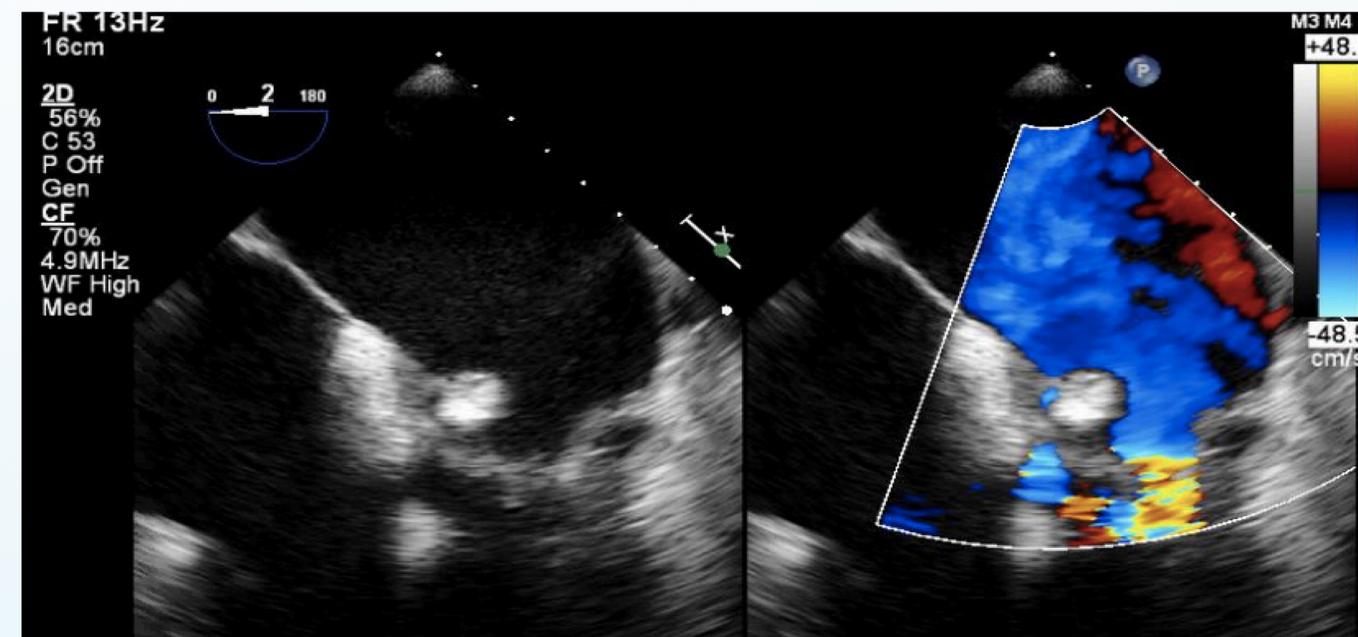
Case Report

A 64-year-old male with chronic severe mitral prolapse and mitral regurgitation (MR) status post MitraClip placement 3 months prior and epistaxis status post nasal packing a few weeks prior, presented with chills and 1 day of rigors. Exam revealed a 3/6 holosystolic murmur at the apex, and splinter hemorrhages on 3 digits of his right hand. Due to high suspicion for IE, blood cultures were drawn and empiric IV vancomycin was given. TEE noted a 10x15mm vegetation involving the anterior mitral leaflet, sparing the MitraClip, severe MR and moderate to severe aortic regurgitation. Three blood cultures grew *S. gordonii*.

Discussion

There are 23 reported cases of *S. gordonii* IE, often after dental work. Current guidelines recommend prophylaxis prior to qualifying procedures in high-risk patients, including those who have undergone valve replacement or repair with prosthetic material. Literature review showed 19 post-TMVr IE cases. Of these cases, 11 underwent salvage surgical MVR. Whether medical or surgical treatment is most apt, timing of surgery if pursued and the overall TMVr risk are all elements of further discussion. Due to vegetation size, presence of recurrent severe MR and concomitant moderate to severe aortic regurgitation, an interdisciplinary team determined early surgical replacement of mitral and aortic valves to be most appropriate.

Image(s)



Conclusion

As transcatheter valve therapies further emerge, the dilemma of periprocedural IE prophylaxis as well as IE treatment approach will be a significant subject of research. To date, there have been 19 reports of IE with involvement of MitraClip. However, this is the first known case describing IE of the native mitral leaflet with sparing of prosthesis.

References

- Asmarats L, Rodriguez-Gabella T, Chamandi C, Bernier M, Beaudoin J, O'Connor K, Dumont E, Dagenais F, Paradis JM, Rodés-Cabau J. Infective endocarditis following transcatheter edge-to-edge mitral valve repair: A systematic review. *Catheter Cardiovasc Interv*. 2018 Sep 1;92(3):583-591. doi: 10.1002/ccd.27632. Epub 2018 May 10. PMID: 29745455.
- Boeder NF, Dörr O, Rixe J, Weipert K, Bauer T, Bayer M, Hamm CW, Nef HM. Endocarditis after interventional repair of the mitral valve: Review of a dilemma. *Cardiovasc Revasc Med*. 2017 Mar;18(2):141-144. doi: 10.1016/j.carrev.2016.11.003. Epub 2016 Nov 10. PMID: 27890554.
- Frerker C, Kuck KH, Schmidt T, Kreidel F, Bader R, Schmoeckel M, Geidel S. Severe infective endocarditis after MitraClip implantation treated by cardiac surgery. *EuroIntervention*. 2015 Jul;11(3):351-4. doi: 10.4244/EIJY14M08_09. PMID: 25136886.
- Roslan A, Kamsani SH, Jauhari Aktifanus AT, Krishnan M, Hakim N, Megat Samsudin WN. Butterfly in the Heart: Infective Endocarditis after MitraClip Procedure. *CASE (Phila)*. 2018;2(2):63-65. Published 2018 Feb 15. doi:10.1016/j.case.2017.10.006