



Foundations of Mitral Valve Repair: 10 tips to ensure a 95% repair rate

Tirone E. David
Toronto General Hospital
University of Toronto





MITRAL VALVE REPAIR



Tip # 1

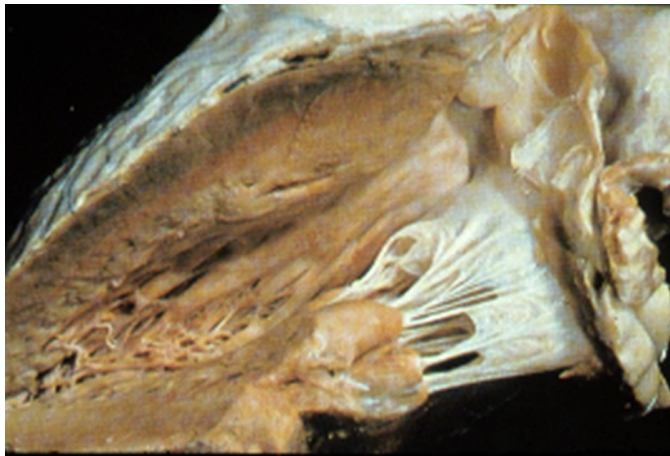
You must know:

1. Anatomy of the mitral valve
2. Pathology of the mitral valve
3. Pathophysiology of mitral valve dysfunction

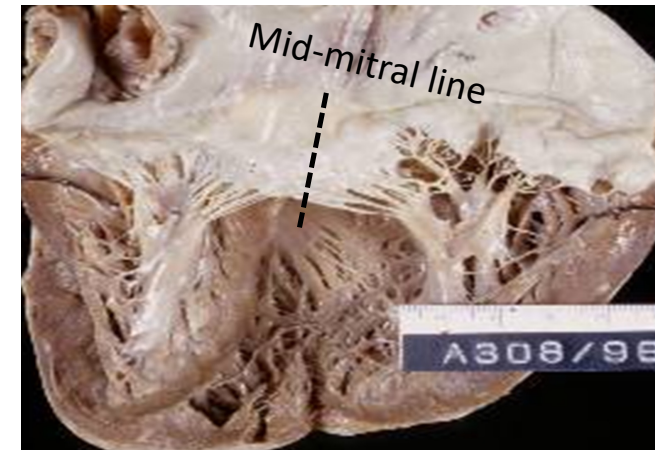


MITRAL VALVE REPAIR

Tip # 2: MV repair is better than MV replacement in degenerative MR



Degenerative
Ischemic
Dilated cardiomyopathy
Rheumatic
Congenital
Endocarditis
Other



A GOOD MV REPLACEMENT IS BETTER THAN A BAD REPAIR





MITRAL VALVE REPAIR



Tip # 3

TEE is an excellent diagnostic tool and aids you in selecting patient for repair BUT do not rely on it alone to perform the repair.






MITRAL VALVE REPAIR

Tip # 4

You must be able to see ALL components of the mitral valve

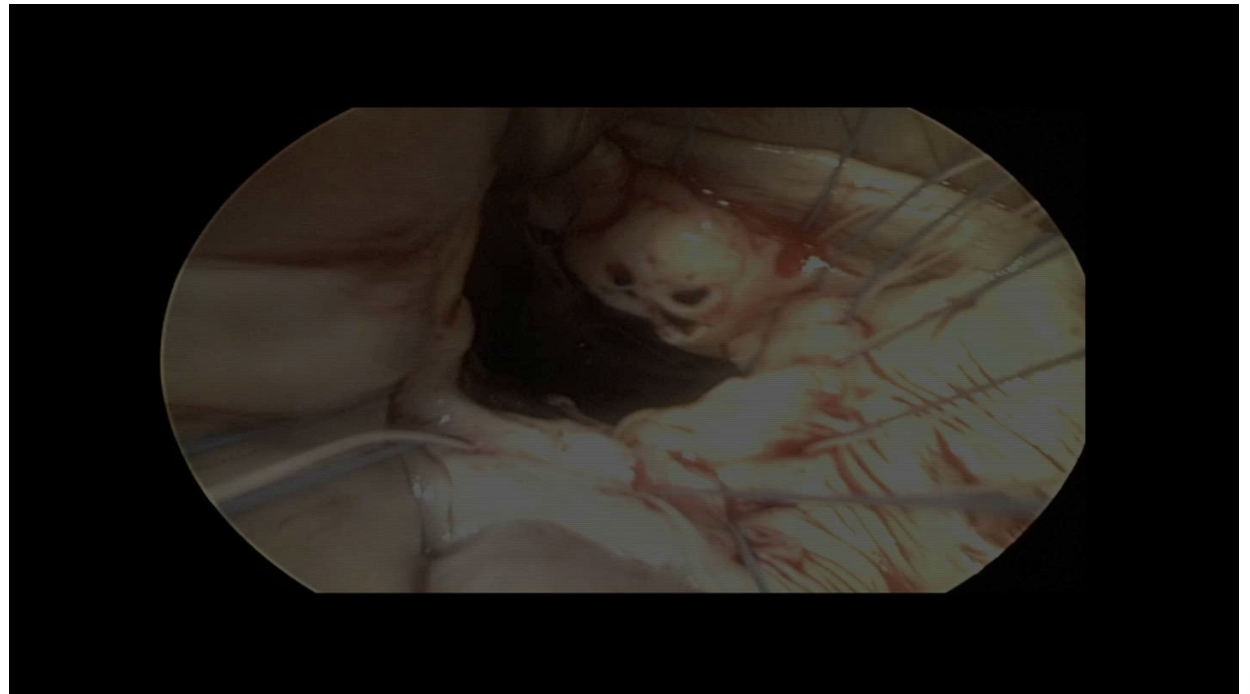
You must examine each segment of the mitral valve individually, identify ALL abnormalities and make a plan to correct each one ONLY after careful analysis





Tip # 5

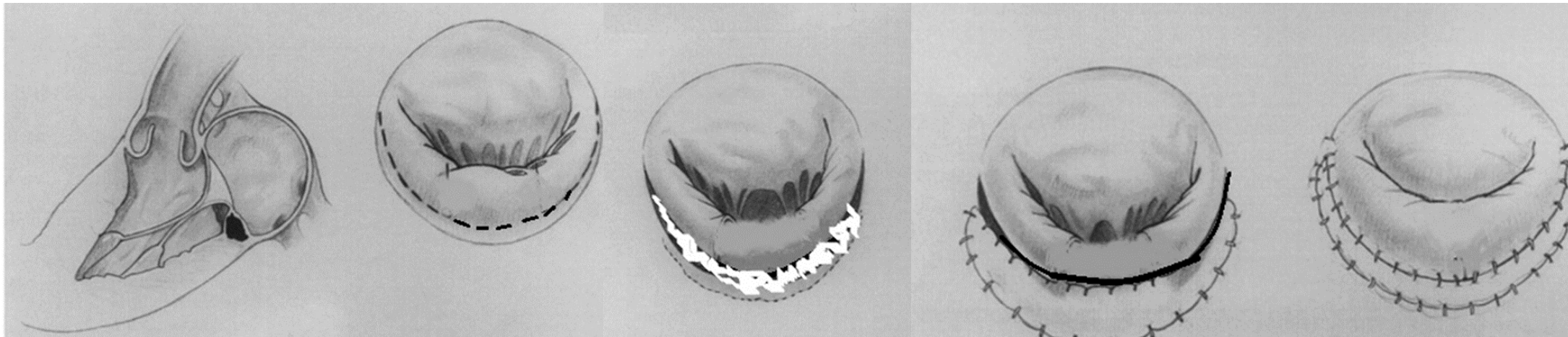
You must be familiar with ALL available techniques of repair and correct each abnormality of the mitral valve



MITRAL VALVE REPAIR

Tip # 6

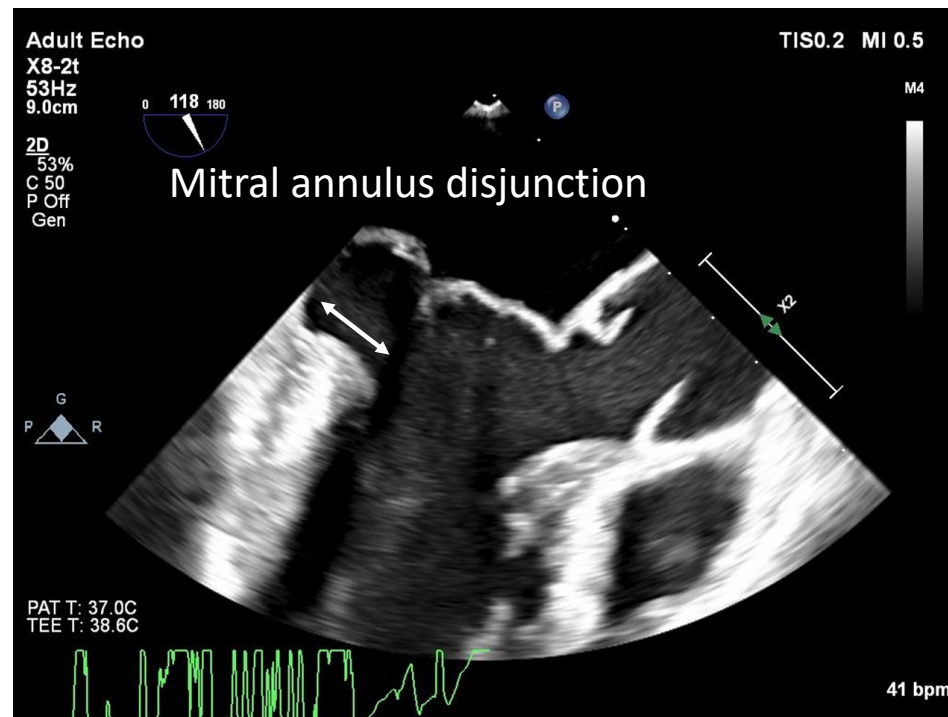
CT scan is the best diagnostic tool to determine the extensiveness of MAC. Resection of MAC is often necessary in order to repair the mitral valve.



MITRAL VALVE REPAIR

Tip # 7

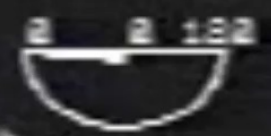
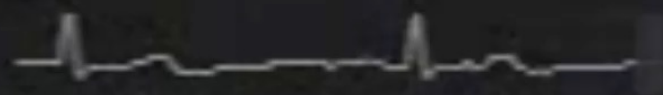
Barlow's valve is frequently associated with MAD



MI: 0.3
T6210
17 SEP 99
09:37:22
PROC R/O/D/F3
THE TORONTO
HOSPITAL

PAT T: 37.0C
TEE T: <37.0C

1:15:17.28
GAIN 33
COMP 47
55BPM
6CM



MITRAL VALVE REPAIR

Tip # 8

An annuloplasty with a ring or a band IS necessary in patients with degenerative mitral insufficiency

The type of device plays no role on perioperative or long term outcome

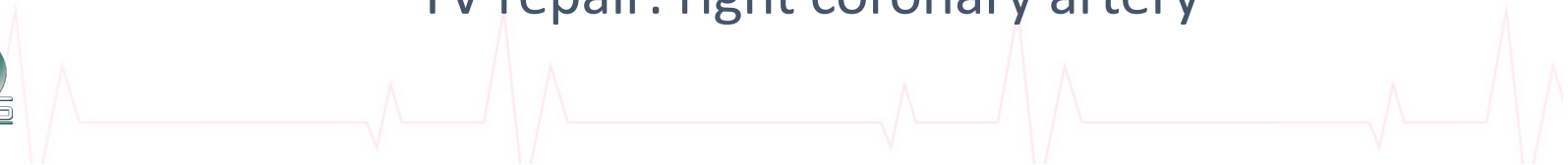




Tip #9

TEE after mitral valve repair:

1. Persistent MR: Moderate → Back on the pump: re-repair
Mild → Residual prolapse?
Restricted leaflet?
2. Systolic anterior motion → MR? Gradient?
3. Wall motion abnormality → MV repair: circumflex
TV repair: right coronary artery





MITRAL VALVE REPAIR



Tip # 10

Follow your patients. You will learn a lot about your skill as a mitral valve repair surgery.





Thank you

