



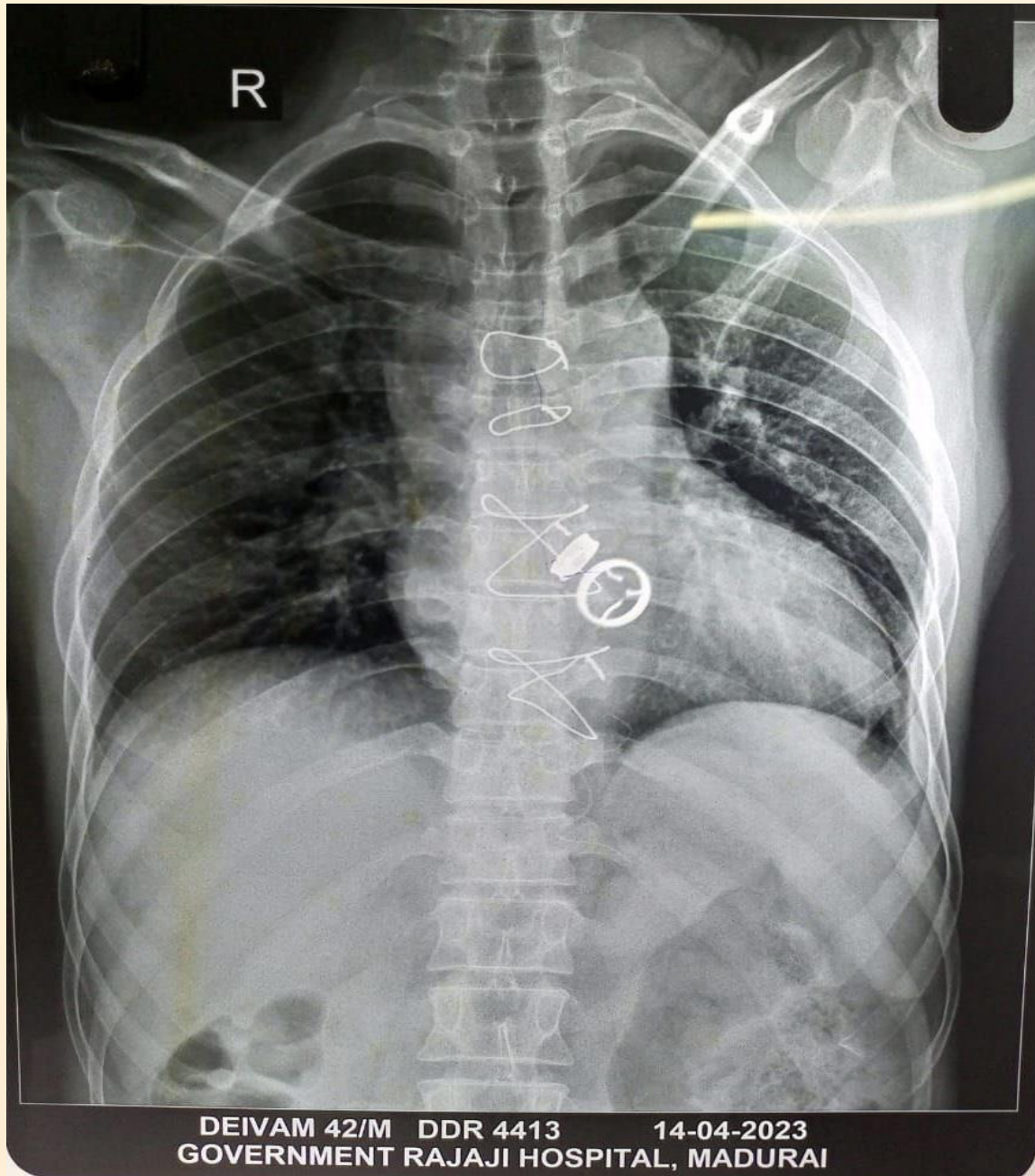
X-ray for discussion

By 2ND MEDICAL UNIT

- 42 yr old, Male, presented with
 - C/o weakness of right upper and lower limb
 - C/o slurring of speech
 - C/o angle of deviation of mouth to left side

Past history

- H/o cardiac illness for which he was operated 4 yrs back
- H/o similar weakness of right upper and lower limb 1 yr back (for 1day/?TIA)



DEIVAM 42/M DDR 4413 14-04-2023
GOVERNMENT RAJAJI HOSPITAL, MADURAI

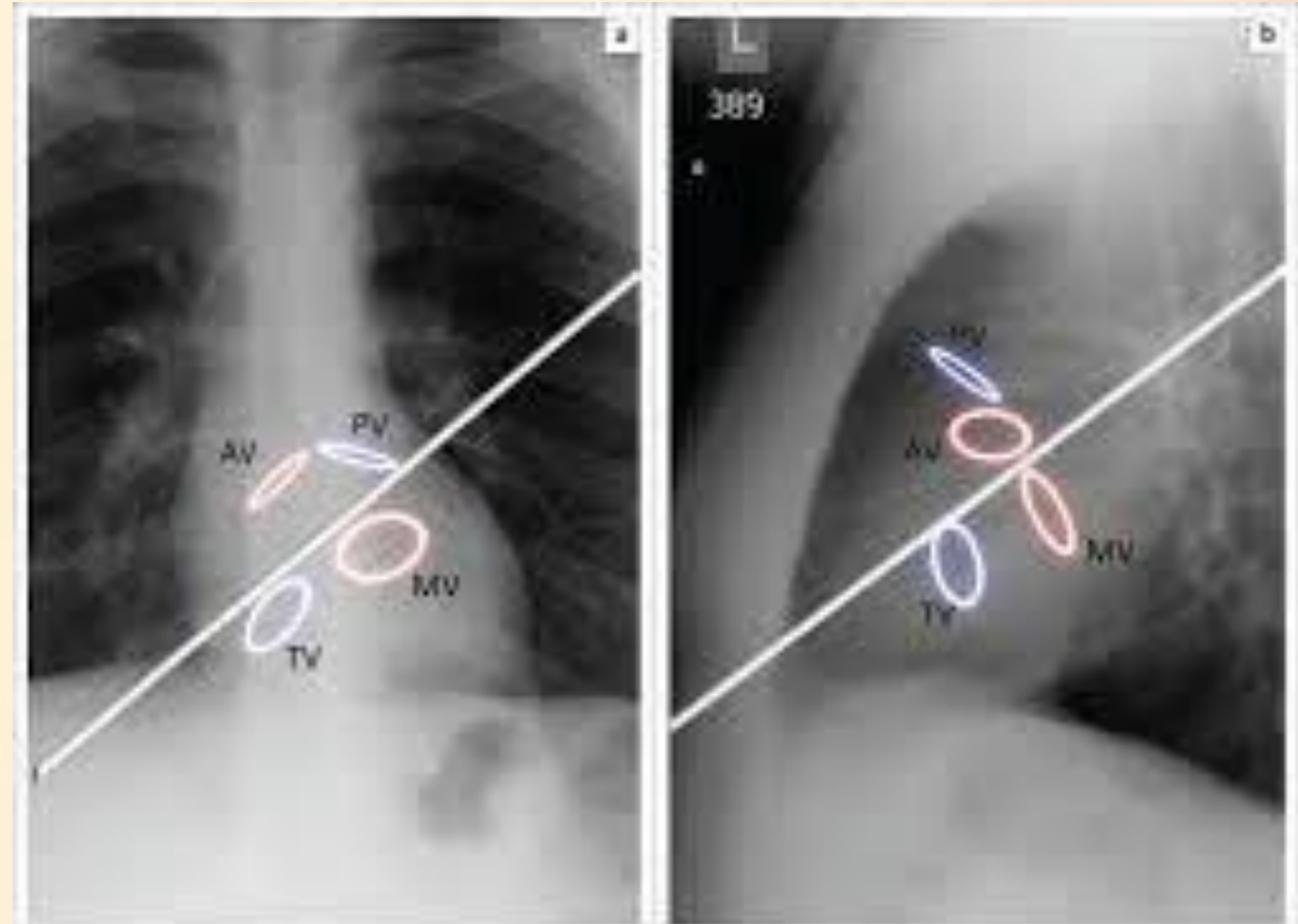
WHAT NEXT???

- 1. Position of the valve (AVR tends to be more medially over the spine)
- 2. Orientation of the valve (MVR is more en-face so diameter of valve better seen)
- 3. Size of the valve diameter (MVR is larger than the AVR)

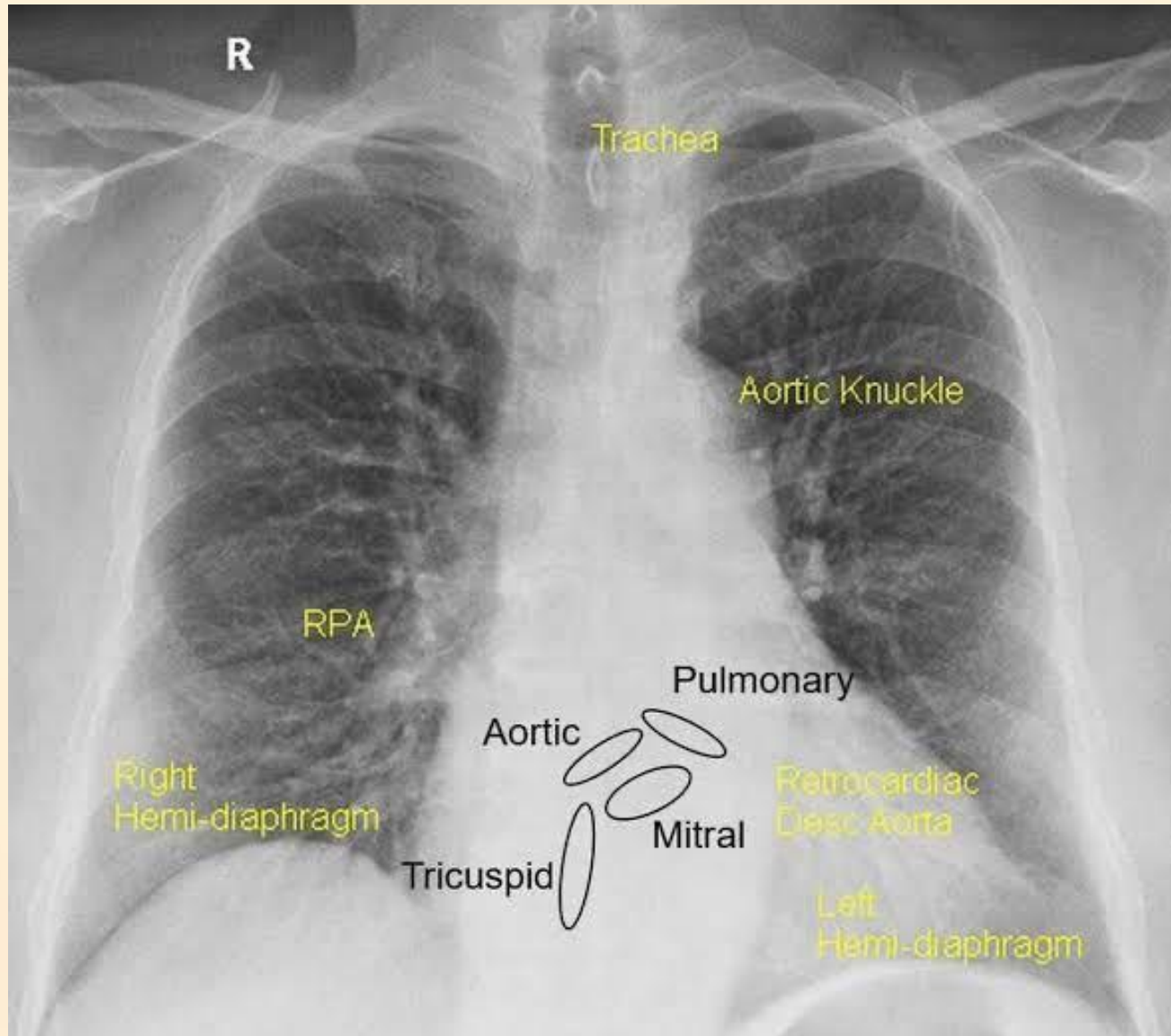
A line should be drawn from the right sided cardiophrenic angle towards the left hilum.

Valve present above the line - Aortic

Valve present below the line - Mitral



Source: Reproduced with permission: Tammam L, Roubicek W, Elmetwally L, Hady L, Hady B. Chest radiography assessment of aortic valve (aortic) and mitral (mitral) valves. *Ann Saudi Med* 2014;34(1):1-4. doi:10.1016/j.asme.2013.08.001. Copyright 2014 Saudi Medical Association. All rights reserved. http://dx.doi.org/10.1016/j.asme.2013.08.001



BALL AND CAGE PROSTHESIS

- Starr Edwards valve – older one with ball and cage design
- Consists of cage with sewing ring and struts
- Mitral – 4 struts, aortic – 3 struts
- Ball shaped poppet will be present which functions during cardiac cycle to open and close the valve
- Being radiolucent, poppet is not visible

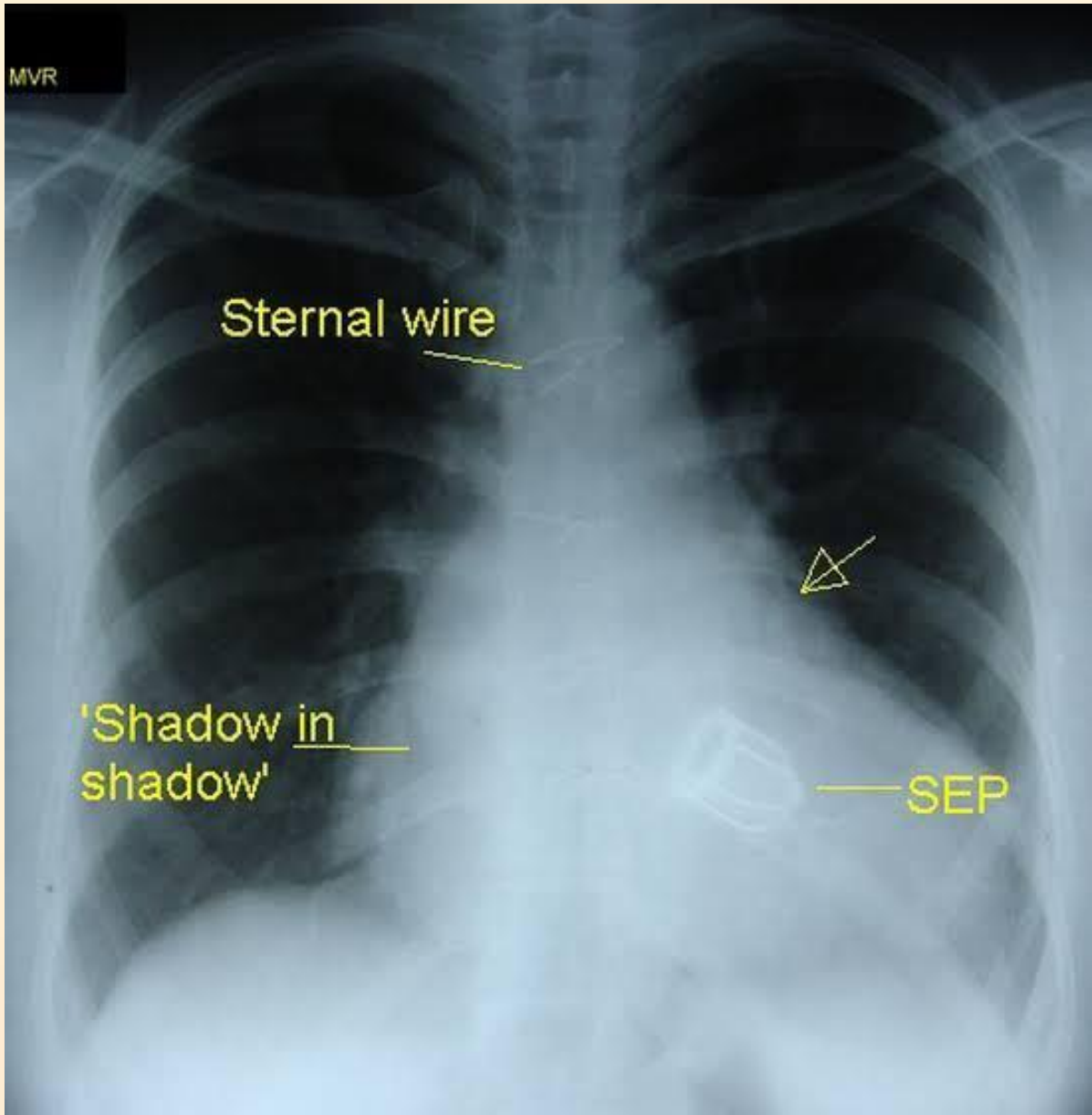
MVR

Sternal wire

'Shadow in
shadow'

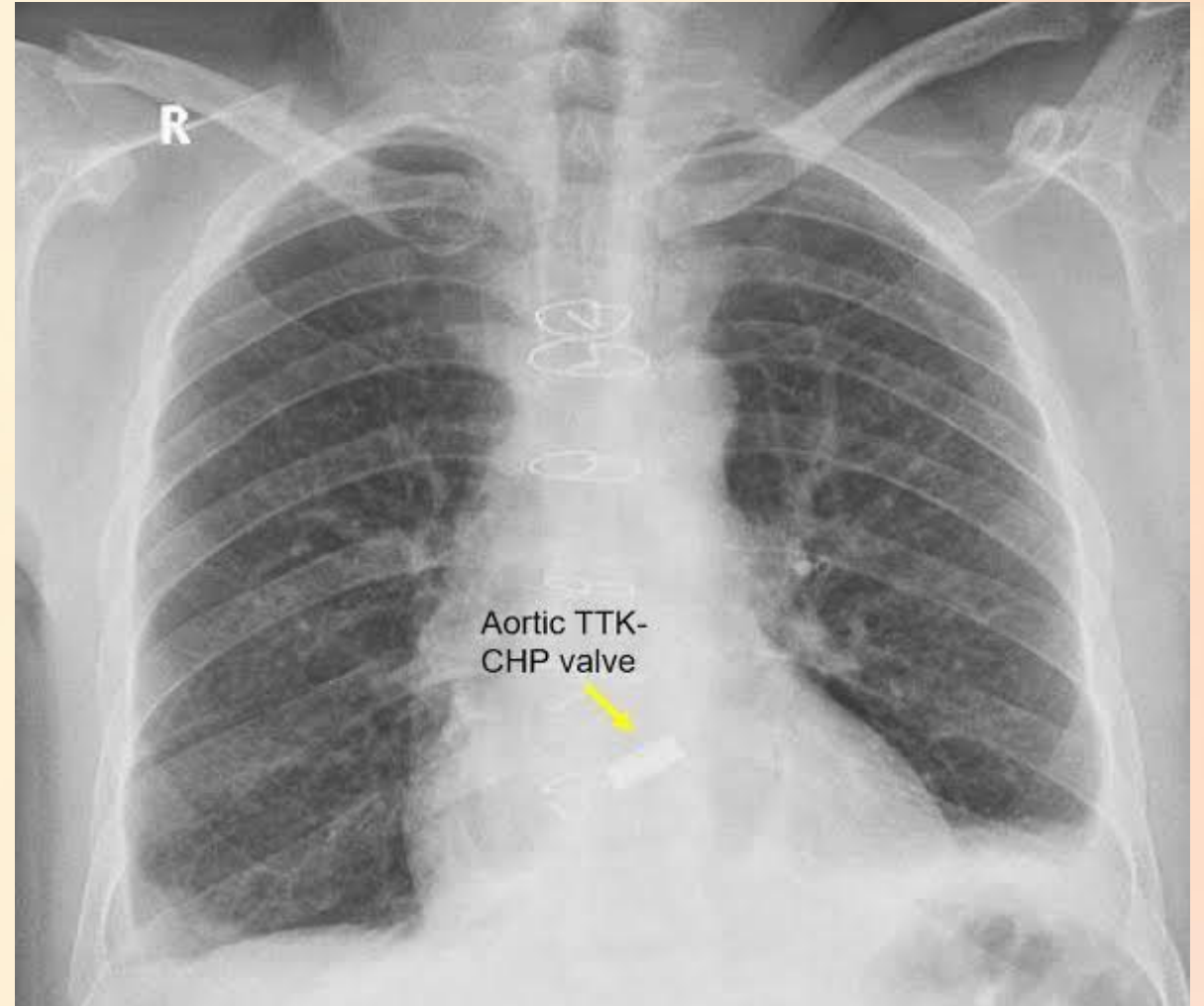


SEP



TILTING DISC VALVES

- Unileaflet and bileaflet valves are available
- TTK Chitra valve – it has valve ring(visible) and polyethylene disc(not visible)



AORTIC	MITRAL
Horizontally oriented	Vertically oriented
In profile view	En face view
Cage directed upwards towards right into aorta	Cage directed downwards towards left into left ventricle

- Valves can be better evaluated by fluoroscopy.
- In fluoroscopy, valve leaflets are visible during cardiac cycle
- St Jude medical and CarboMedics have slightly different features , but similar clinical performances
- Medtronic hall is single leaflet valve
- OnX – newer bileaflet valve approved for less warfarin requirement n aortic position

THANK YOU !!!