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An Interesting Case of Isolated Aortic Arch Aneurysm

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I. INTRODUCTION

➢ *Case Report*

A90 year old female, housewife by occupation came with the complaints of shortness of breath grade 2 NYHA since 6 months, insidious in onset gradually progressed from grade 2 to grade 3 NYHA initially which progressed to grade 4 NYHA over past 1 week, aggravated on exertion, relieved on rest. Not associated with chest pain, aggravated on exertion and relieved on taking rest. H/o bilateral pitting oedema present for 1 month. H/o Orthopnea 2 episode and PND.

➢ *Past History*

K/C/O HYPERTENSION FOR 5 YEARS ON REGULAR MEDICATION - TAB. Atenolol 20mg 1-0-1
K/C/O DIABETES MELLITUS FOR 5 YEARS NOT ON MEDICATION STOPPED 2 YEARS BACK

➢ *On Examination*

Patient is conscious, oriented, afebrile temp: 97 f
No pallor, icterus, cyanosis, clubbing and lymphadenopathy
Pedal edema +
BP: 170/120 mmHg
PR: 102 bpm
SpO^2: 99 @RA

II. SYSTEMIC EXAMINATION

- **CVS**: S1, S2 HEARD, NO MURMUR
- **RS:** NORMAL VESICULAR BREATH SOUND, BILATERAL CORASE CREPITATION
- **CNS**: NO FOCAL NEUROLOGICAL DEIFICT
- **ABDOMEN**: SOFT, NON-TENDER AND NO ORAGANOMEGALY

III. INVESTIGATIONS

- CBC: TLC: 5860 (N-60 L-24 M-08 E-03), RBC count – 3.7million/cubic mm, HB- 11.2 gm/dl, ESR – mm/hr, Platelets -lakhs, PCV- 42% , MCV- 93 Fl , MCH- 30 pg., MCHC- 32 g/dl , RDW-14.3% , Urine R/E – WNL
- RBS –167mg/dl
- RFT - Urea- 44 mg/dl, Creatinine – 1.7
- SERUM ELECTROLYTES - Na-143 K-3.8 Cl-106
- LFT: Total bilirubin – 0.7 Direct – 0.2, Total protein – 6.1 Albumin- 3.7, AST-74, ALT-56, ALP- 150
- ECG – Normal sinus rhythm, T wave inversions in V1,V2,V3,V4,V5 ,V6 and inferior leads
- Chest X-Ray – Cardiomegaly present, Widened mediastinum with prominent aortic arch and knuckle
- Spirometry – Normal Lung function
- 2D ECHO – Largely dilated LA, LV, GLOBAL LV HYPOKINESIA , EF-30% , mild TR , mild MR, Normal valves, No Effusion , No evidence of shunt
- HRCT – fusiform dilatation of arch of aorta predominantly involving proximal arch with no signs of rupture in the present study.

✓ Origin of brachiocephalic trunk appears mildly prominent and ectatic.
✓ The arch appears to displace the trachea towards the right.
✓ Cardiomegaly.
✓ Features suggestive of aortic arch aneurysm.
✓ Right mild plural effusion.
✓ Fibrotic changes with traction bronchiectasis and brochiolectatic changes involving bilateral lung fields.

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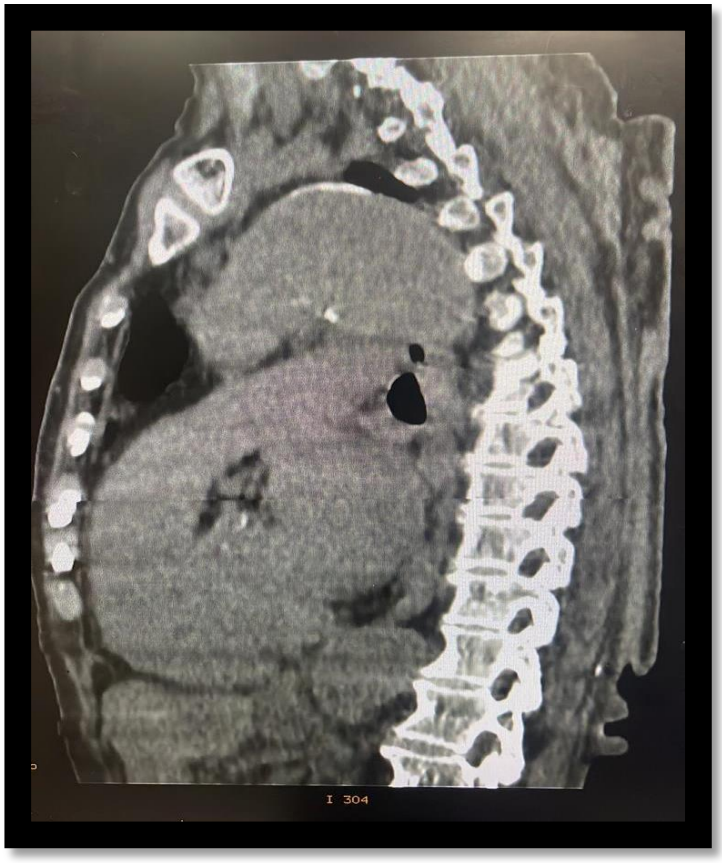

Fig 1: CT THORAX

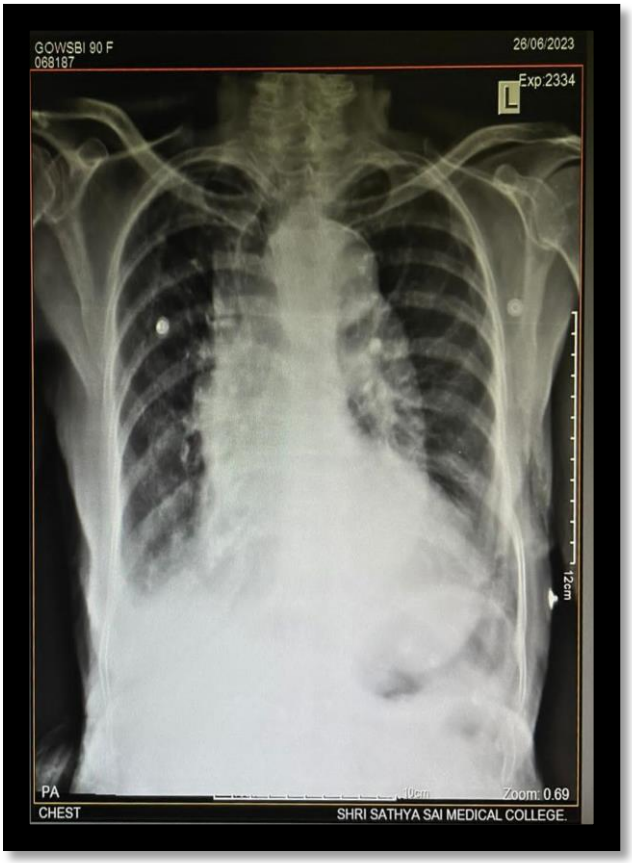

Fig 2: CHEST X-RAY

IV. DISCUSSION

Isolated aortic arch aneurysm is a rare entity. Usually occurs with ascending or descending aorta .M/c etiology in younger age group is connective tissue disorder including Marfan syndrome, Ehlers Danlos usually associated with aortic root dilation causing aortic regurgitation while in old age it is associated with atherosclerosis.

Medical management: beta blockers, strictly control blood pressure below 130/80 mm of Hg. Main stay of treatment is surgical management including TEVAR, open repair using aortic graft. Compared to surgical repair, TEVAR is safe and efficient method of treating aortic arch aneurysm, with better peri operative and long term results

V. CONCLUSION

Based on the above clinical findings and investigations, patient was diagnosed to have aortic arch aneurysm/congestive cardiac failure (Ejection fraction-30%)/Hypertension/Diabetes type-2,Patient was started on appropriate medical management, patient improved symptomatically. Patient's prognosis was explained to the attenders and the need for TEVAR in the near future is explained to them.

REFERENCES

[1]. Senser EM, Misra S, Henkin S. Thoracic aortic aneurysm: a clinical review. Cardiol Clin. 2021;39(4):505–15.

[2]. Hetzer R, Delmo Walter EM, Meyer R, Alexi-Meskishvili V. Isolated giant aortic aneurysm in an infant: Ehlers-Danlos syndrome type IV. Ann Thorac Surg. 2008;86(2):632–4.

[3]. Takeshita M, Mizuno T, Yashima M, Oi K, Kuroki H, Fujiwara T, et al. Surgical repair of an Arch and descending aortic aneurysm in a child. Ann Thorac Surg.

[4]. Propensity adjusted analysis of open and endovascular thoracic aortic repair for chronic type B dissection: a twenty-year evaluation. van Bogerijen GH, Patel HJ, Williams DM, Yang B, Dasika NL, Eliason JL, Deeb GM.Ann Thorac Surg. 2015 Apr;99(4):1260-6. doi: 10.1016/j.athoracsur.2014.11.037. Epub 2015 Feb 14.PMID: 25686670.