



There is no Substitute for Clinical Acumen

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Article Info

ISSN (online): 2582-8940

Volume: 05

Issue: 04

October-December 2024

Received: 25-07-2024

Accepted: 03-09-2024

Page No: 30-32

Abstract

A 77-year-old male with hypertension and diabetes presented for a routine follow-up but experienced syncope in the clinic. Despite normal sugar and SpO₂ levels, he had an unrecordable BP and pulse, improving with fluid intake. Initial cardiac evaluation, including 2D echo and troponin, was normal, and potential causes such as sepsis and dehydration were excluded. Further investigation revealed a renal mass, confirmed as renal cell carcinoma (RCC) by CT urography. A PET-CT showed no metastasis. Following nephron-sparing surgery, the patient recovered well, with unexpectedly lower blood pressure medication postoperatively. This case emphasizes the importance of thorough evaluation and clinical reasoning in internal medicine. Renal cell carcinoma can present atypically, as seen here with syncope and hypotension. The application of Bayes' theorem and a methodical approach led to timely diagnosis and management, avoiding potentially severe outcomes.

Keywords: Renal cell carcinoma (RCC), Syncope evaluation, Hypotension management, Nephron-sparing surgery

Introduction

Mr BD, a 77 yrs. old male, a known case of HT and DM, came for a routine follow up to our clinic. He had been under excellent control and was taking same medications since last 2-3 years at least. He had giddiness in the waiting room and collapsed. Sitting BP /P was almost not recordable and he was drenched in perspiration. Once in supine position, he felt better and was conscious/oriented. A BP of 84/46 was recorded, which rose later to 110/70 after electrical water. Most usual causes of syncope were quickly eliminated by history/examination^[1, 2]. Sugar/SpO₂ was normal. He denied dehydration/inadequate water intake^[3] and reported NO symptoms prior to syncope and was clueless about the incident/possible aetiology. Physical examination-NAD, ECG-LBBB (as before). On further questioning, he did recall mild fatigue with palpitations since last few days, but hadn't been too bothered with this. He was directed to a local hospital for admission/evaluation. They found the 2D echo and Trop I normal and discharged him. Not satisfied with this, we admitted him under our care in Apollo Hospital for a thorough check up.

Clinical reasoning

A previously healthy person who's BP/P/Sugar had been under excellent control, suddenly has a syncopal attack with unrecordable P/BP. This, to an internal medicine person signifies (A) Occult cardiac event-which was ruled out by 2D/Trop I being normal. Other possibilities were (B) Septicaemia-which didn't fit in with history/examination/labs. (C) Hypotension following neuro depressor syncope following toxic vasodilatation secondary to paraneoplastic syndrome.^{4,5} Medical literature does mention an association between syncope and cancer^[6].

We focussed on the third possibility and struck gold.

Investigations

CBC-12/6950/124000, Electrolytes: NA-136, K-5.3, CREAT-1.09, PT/INR-14.2/1.02 SGOT/SGPT-37/32, ALK. PHOS-77, ESR-16, HBA1C-5.9, VIT B12-299, VIT D3-20, LIPID PROFILE-WNL, PSA-0.2, PTH-80.3, CPK-149, FT3/FT4/TSH-2.3/1/3.29, BUN-11, URINE R/M-ABSENT RBC, SUGAR-TRACE, PUS CELLS 2-4.

X-RAY CHEST (PA): NAD

USG-abdomen and pelvis A 5.2 x 5.0 x 4.0 cm sized well defined heterogeneous slightly hyperechoic, exophytic, vascular lesion was noted involving the lower interpolar cortex and lower pole cortex. It indented the perinephric fat plane. These findings represented neoplastic aetiology.

20/1/2024- CT UROGRAPHY Well-defined round to oval hypodense heterogeneously enhancing necrotic partially exophytic lesion in lateral interpolar and lower polar region of left kidney causing mild contour bulge with mild adjacent

fat stranding likely suggestive of neoplastic aetiology. Further clinical and histopathology correlation was suggested.

Ultrasound Neck No significant abnormality seen.

2D-ECH Mild Concentric LV Hypertrophy. Normal LVEF=55-60 %. No RWMA. Grade I DD. Trivial MR. Trivial TR. No PH.

USG Scrotum -Varicocele

Oncuro Surgeon advised excision of the RCC after Pet CT. His platelets were on lower side (124) as compared to previous count of 224. Peripheral Smear confirmed presence of giant platelets.

PET CT: Left Renal Cell Carcinoma without nodes and without distant metastasis.

That explained the clinical presentation ^[7].

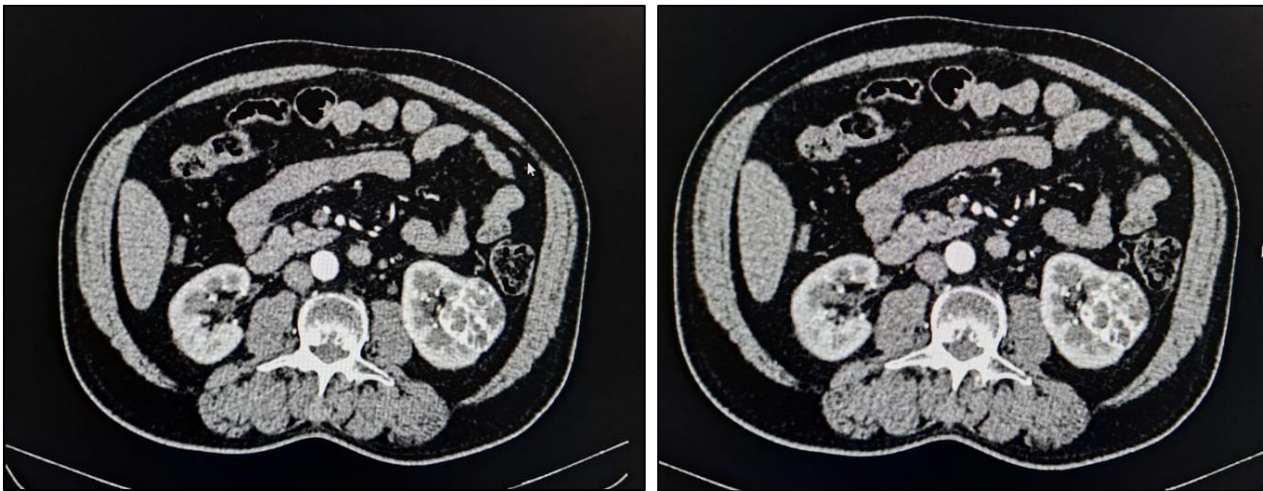


Fig 1: Ultrasound Neck No significant abnormality seen

Final diagnosis

Left Renal Cell Carcinoma, Varicocele, Syncopal Attack With Hypotension, Diabetes, Dyslipidaemia, Thrombocytopenia With Giant Cells On Smear, Deficiencies of Vit B12, Vit D3.

Course

After stabilisation, he underwent Nephron sparing selective nephrectomy with excellent results.

Follow UP

He's been following up regularly with us, continues to be in excellent health. Surprisingly his BP medications have stayed at a very low dose post op as compared to before this episode.

Discussion

The classic presentation of renal-cell carcinoma includes the triad of

Flank pain, hematuria, and a palpable abdominal mass.

However, not every patient presents with such classical text book features. Now a days lots of cases are picked up following routine USG evaluations as incidental findings. Sometimes fatigue, unexplained anemia, weight loss may occur. RCC is seen more in context with those who smoke, are obese and hypertensive.

Males esp. those in 6th-7th decade are more vulnerable. Hematuria is an important association.

Conclusion

In today's era where random tests are ordered without sound clinical correlation and application of rationality, Bayes' theorem would be an eye opener.

Bayes' Theorem is used to, improve the accuracy of medical diagnosis. It helps doctors calculate the probability of a disease based on symptoms, test results, and the overall prevalence of the disease, ensuring more accurate treatment decisions.

After all, a machine is only as efficient as the man behind it. An inherently suspicious and questioning attitude goes a long way in success especially in field of Internal Medicine. Dismissing a case or a patient merely because a few tests are "normal" doesn't help at all. Every case is a complex jigsaw puzzle and the ONLY solution is a patient understanding, logical thinking and a keen "problem solving ability". In the case discussed above, this patient was cursorily subjected to a few tests and declared "fit" as per those results. There would've been horrendous outcomes had he not been worked up in details. And which direction to pursue, which specific tests to be ordered (and with which rationale) depends upon the clinical acumen of the attending physician. And that's where applied medicine should be headed.

References

1. White CM, Tsikouris JP. A review of pathophysiology and therapy of patients with vasovagal

- syncope. *Pharmacotherapy* 2000;20:158-65.
2. Brignole M, Alboni P, Benditt D, Bergfeldt L, Blanc JJ, Bloch Thomsen PE, *et al* for the Task Force on Syncope, European Society of Cardiology. Guidelines on management (diagnosis and treatment) of syncope. *Eur Heart J.* 2001;22:1256-306.
 3. Lu CC, Diedrich A, Tung CS, Paranjape SY, Harris PA, Byrne DW, *et al.* Water ingestion as prophylaxis against syncope. *Circulation* 2003;108:2660-5.
 4. Mads Okkels Birk Lorenzen, Dóra Körmendiné Farkas, Kasper Adelborg, Jens Sundbøll & Henrik Toft Sørensen Syncope as a sign of occult cancers: a population-based cohort study *British Journal of Cancer.* 2020;122:595-600.
 5. Eichinger S. Cancer associated thrombosis: Risk factors and outcomes. *Thromb. Res.* 2016;140(Suppl. 1):S12-S17. Doi: 10.1016/S0049-3848(16)30092-
 6. Andres Mata, Hanieh Sadat Tabatabaei Yeganeh, Abi Watts, Carlos Felipe Matute Martinez, Evbu Omoyemwen Enakpene and Leela K. Lella. Malignant Syncope: A Case Of Rcc Diagnosed By The Cardiology Team. *Jacc.* 2024;83(13_Supplement):3484.
 7. Richard I Vogel, Gary Baladi, Michael Klein, Ahmed R Khorasani. Metastatic Renal cell carcinoma-An unusual case of syncope *Chest Journal.* 1990;98(2):481-482.
 8. Martijn JL. Bours. Baye's rule in diagnosis <https://doi.org/10.1016/j.jclinepi.2020.12.021>