The Nighttime Twitch: A Case of Restless legs Syndrome (RLS) in a Peritoneal Dialysis Patient

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Mr KN

- 38M referred to RSC service for management of severe restless legs

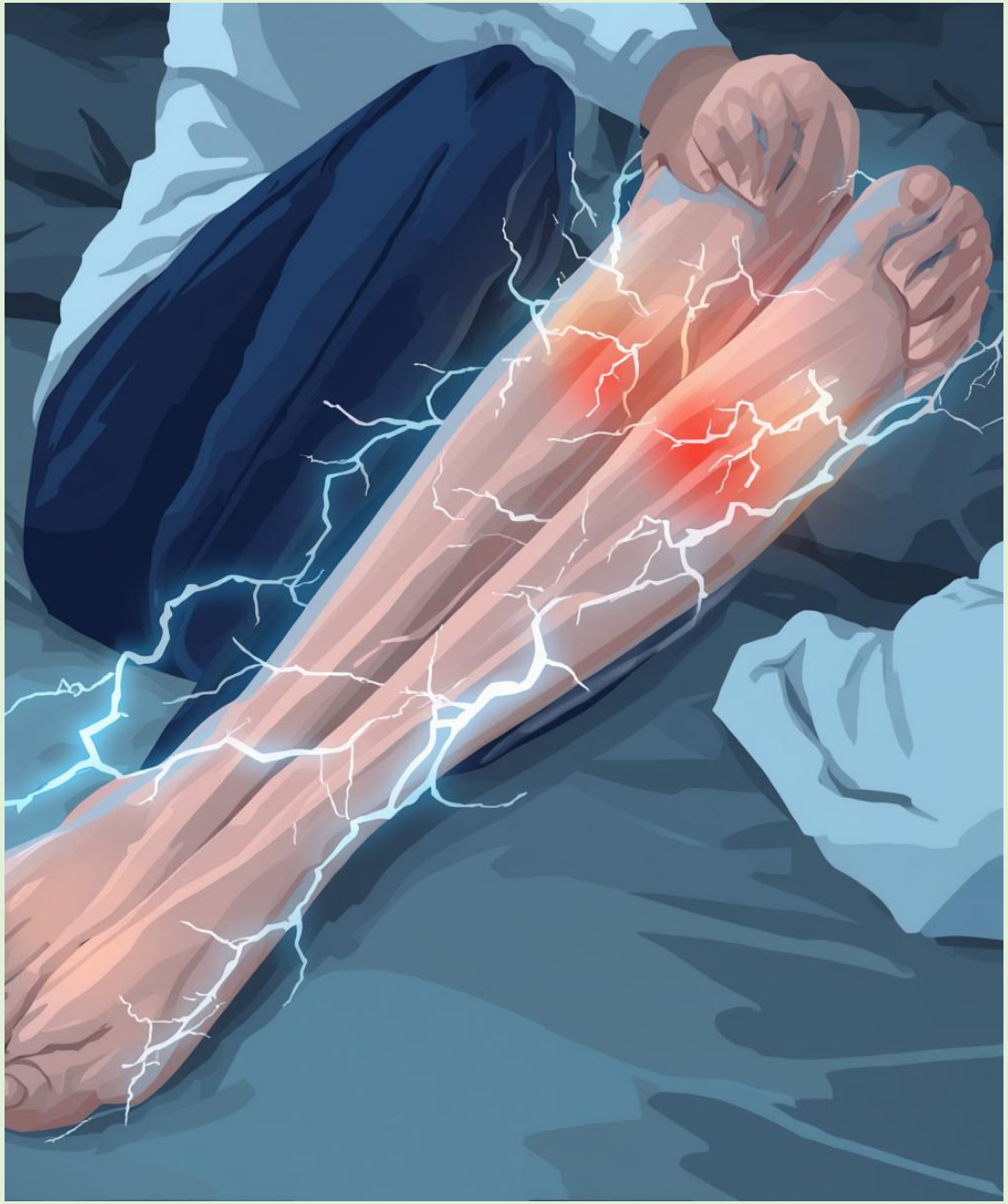
- **Background**
  - ESKD 2’ to IgA nephropathy on APD since Feb 2016
  - Gout
  - Hyperlipidaemia
  - Hypertension
  - Latent TB (treated)
  - Current smoker

- **Medications**
  - Ramipril 10mg daily
  - Rosuvastatin 10mg daily
  - Amlodipine 5mg daily
  - Calcitriol 0.5mcg daily
  - Renagel 2 tablets TDS
  - Allopurinol 300mg daily

Also called as: Willis-Ekbom Disease (WED)
Sensorimotor disorder characterised by **irresistible urge to move the limbs** during rest, which can be temporarily relieved by movement

- Nighttime hustle
- Sleep thief
- Antsy feeling
- Deep discomfort





SYMPTOMS OF RLS AND DIAGNOSTIC CRITERIA

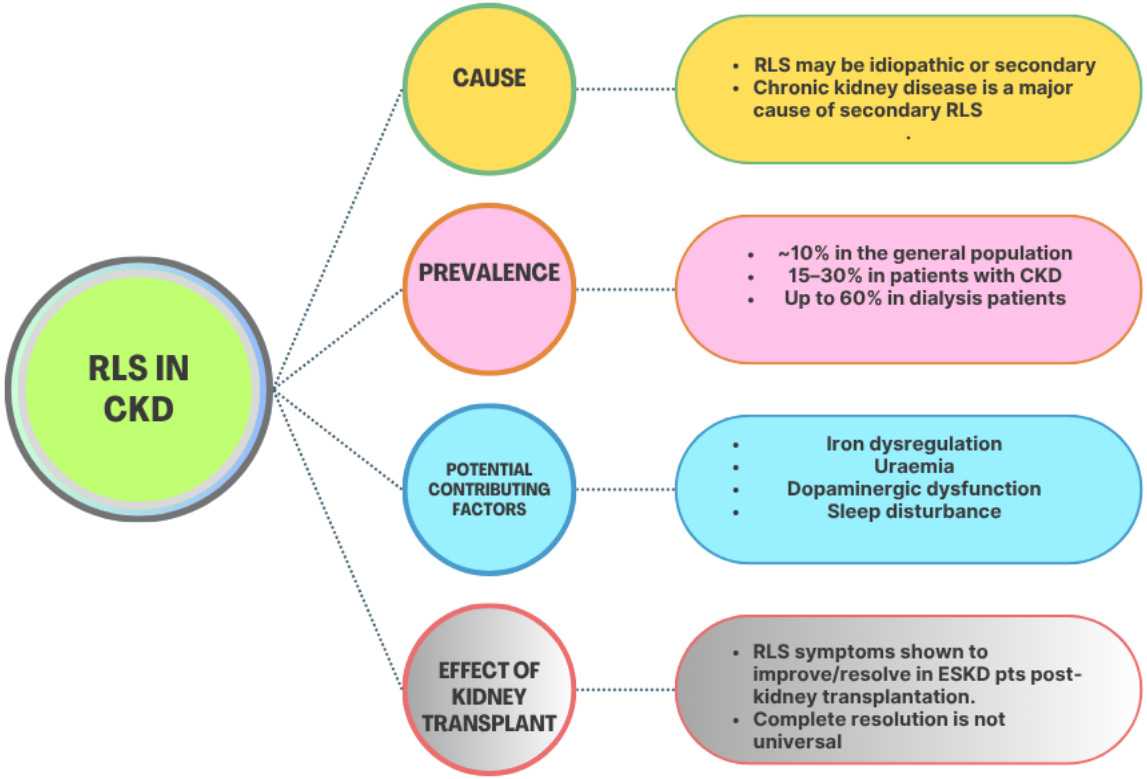
COMMON SYMPTOMS

•Crawling, tingling, aching, pulling, or "electric" sensations
•Deep discomfort that is difficult to describe
•Significant sleep disturbance and reduced quality of life

DIAGNOSTIC CRITERIA

- ✓ Urge to move the legs
  ✓ Worse during rest/inactivity
  ✓ Relieved by movement
  ✓ Worse in the evening or night
  ✓ Not explained by another condition

RLS in CKD



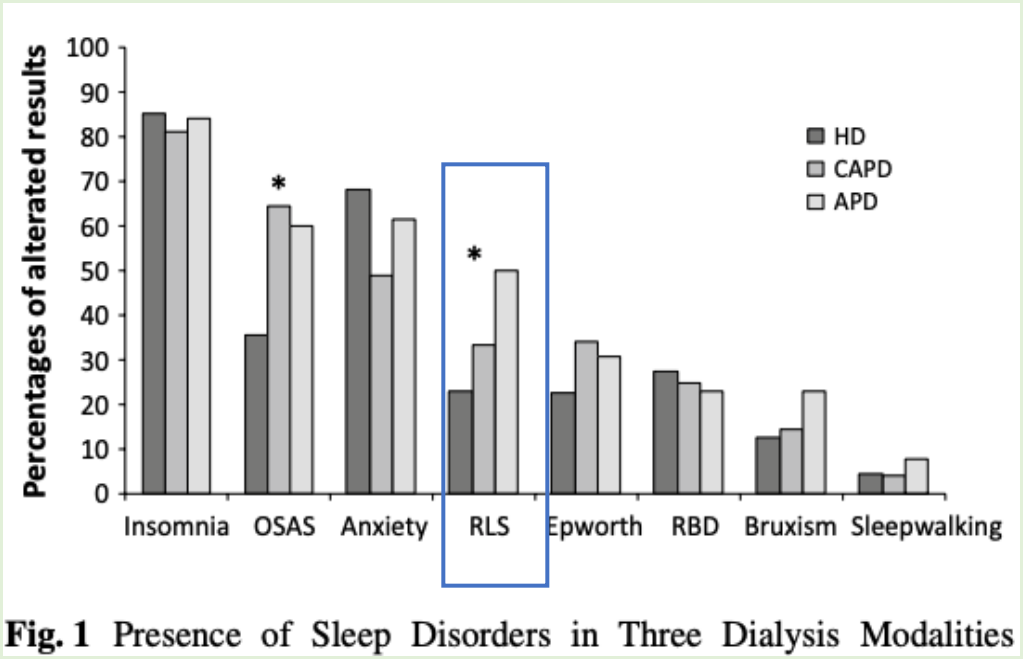


Fig. 1 Presence of Sleep Disorders in Three Dialysis Modalities

[1]Safarpour Y, et al. TOHM. 2023;13(1):1-13.
[2]Hadia R, et al. J Young Pharm. 2024;16(3):556-62.
[3]Losso RL et al. Int Urol Nephrol. 2015;47(2):369-75.
[4]Al-Jahdali H. Saudi J Kidney Dis Transpl. 2011;22(5):922-30.
[5]Azar SA, et al. Transplantation Proceedings. 2007;39:1132-33.
[6]Winkelmann J, et al. Movement Disorders. 2002;17(5):1072-76.

TIME LINE

MID 2020



Initial RSC consult

- •Restless legs – worse at night, poor sleep. Stopped work.
- •Not iron deficient or anaemic
- •Gabapentin/pregabalin ineffective in past
- •Started pramipexole 0.125mg daily, gradually uptitrated to 0.75mg daily

Some improvement

Late 2020



- Worsening RLS and insomnia, nocturnal drain pain
- Pramipexole reduced to 0.25mcg daily
- Started gabapentin 100mg daily, tapentadol SR 50mg nocte, clonazepam 0.5mg nocte
- Significant improvement. Pramipexole self-ceased.

Early 2021



- •Worsening RLS
- •Self-medicating with marijuana
- •Gabapentin cont'd, pramipexole restarted 0.125mgà0.25mg daily
- •Clonazepam and tapentadol ceased
- •Significant improvement for ~3 months

MID 2021



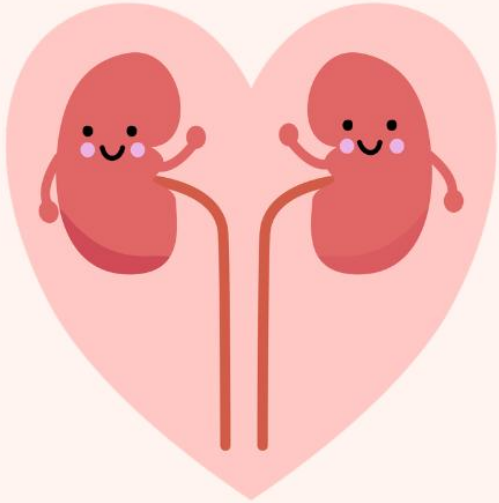
- Recurrence of RLS. Pramipexole ↑ 0.5mg daily, gabapentin cont'd.
- Worsened RLS one month later. Pramipexole ↓ 0.25mg daily, restarted tapentadol SR 50mg BD.
- Also commenced on CBD oil by GP
- Transient improvement

Late 2021



- Worsening RLS one month later, incl daytime symptoms and **<u>whole body involuntary movements</u>**
- Neurologist RV – not seizure disorder, consistent with RLS 2' to ESKD
- Pramipexole ceased (no difference, so restarted 0.125mg daily)
- Gabapentin ↑ 200mg daily (then self-ceased)

KIDNEY TRANSPLANT



JUNE 2022

TIME LINE

2022

JUNE

•2 weeks post-Tx: high tacrolimus levels. Worsened RLS/body jerks at night and sometimes day. Gabapentin ↑ 100mg BD, pramipexole ↑ 0.375mg daily with only temporary improvement.
•3 weeks post-Tx – worsened RLS/body jerks. Pramipexole ceased. Started Tapentadol SR 50mg nocte.

JULY

Significant improvement, only mild upper body twitch
Self-ceased gabapentin, pramipexole, tapentadol

SEPT

- RLS recurred (mild)
- Tapentadol SR daily 50mg recommenced due to concurrent bilateral elbow pain

OCT

- Persistent upper limb twitching
- Iron deficiency anaemia (ferritin 19mcg/L, Tsats 9%, Hb 109g/L) – given iron infusion, referred to Gastro for gas/colonoscopy that showed gastritis, otherwise NAD

2023

EARLY

- Stable graft function (Cr 170umol/L, eGFR 42ml/min)

•Intermittent RLS, only mild
•Remained off pramipexole, gabapentin, tapentadol

MID

- Ongoing intermittent RLS/upper body twitching at night, poor sleep, daytime drowsiness
- Gabapentin restarted. Tacrolimus switched to sirolimus

LATE

- No improvement in RLS
- Gabapentin ↑ 100/200 mg BD with some effect
-

MOVED TO VIETNAM

2024



- MOVED TO VIETNAM, TRAVELLING BACK TO AUSTRALIA INTERMITTENTLY
- ONGOING INTERMITTENT RLS, CONTINUES ON GABAPENTIN

Case reflections



Augmentation syndrome with dopamine agonists



Does kidney transplantation really fix RLS?



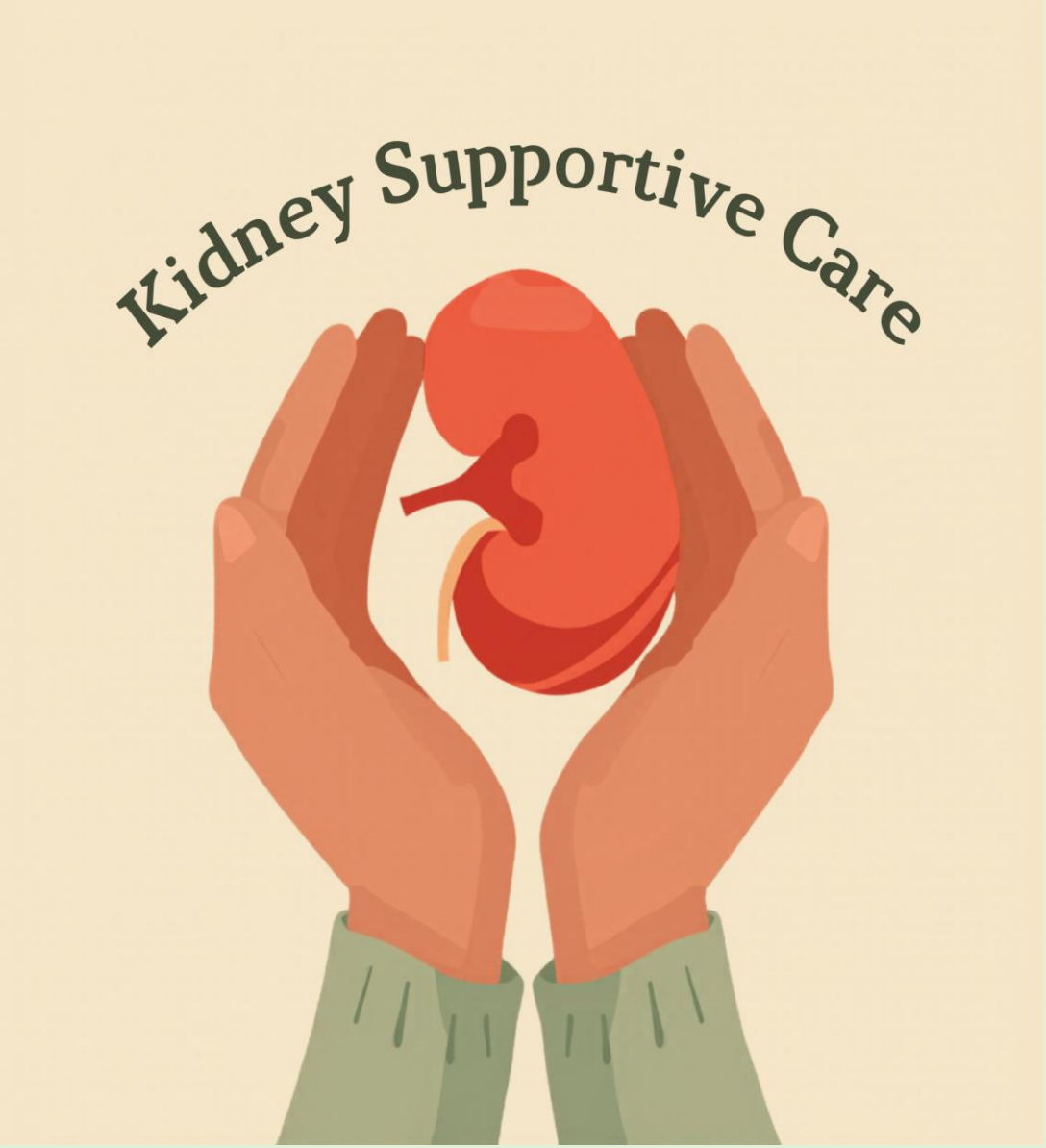
Role of iron deficiency in RLS

UPDATE

- Troublesome restless legs persist, associated with upper body twitching.

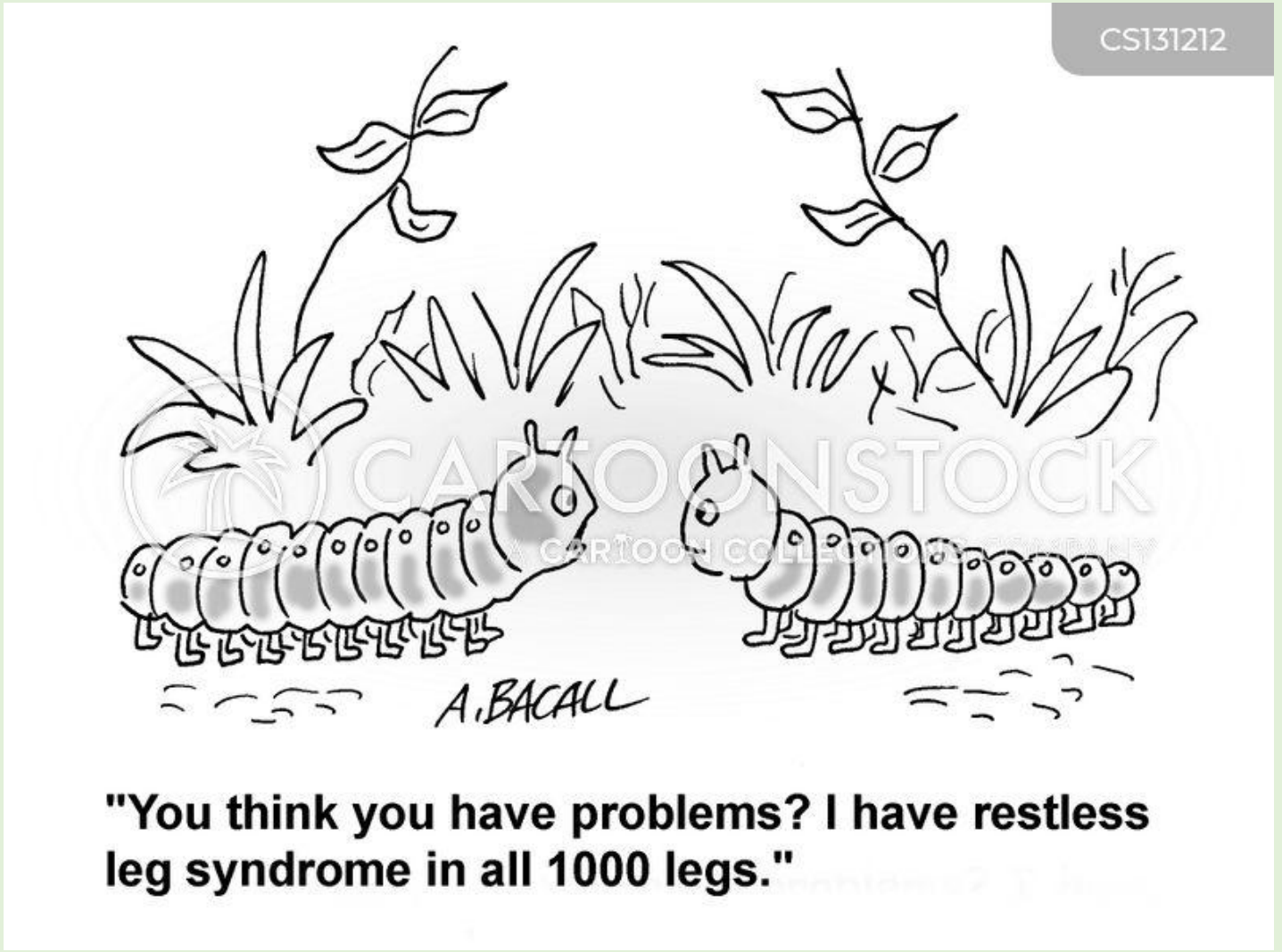
- He will be coming back to Australia in July to consult with a sleep specialist at Royal Prince Alfred Hospital for further assessment and exploration of treatment options for his restless legs syndrome.





- Just to quickly highlight the Kidney Supportive Care service and its role in the patient's journey, as demonstrated in this case.
- Patients like K are a powerful example of the lasting relationships formed in renal care, where over time we become more than just part of the treating team — we become part of the patient's extended family, sharing in the challenges, milestones, and journey alongside them.

Thank you
Everyone



References

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