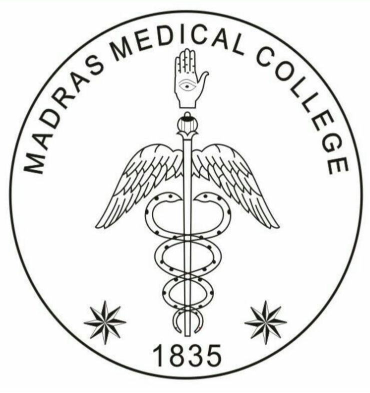
RENAL INFARCT- A RARE CASE REPORT



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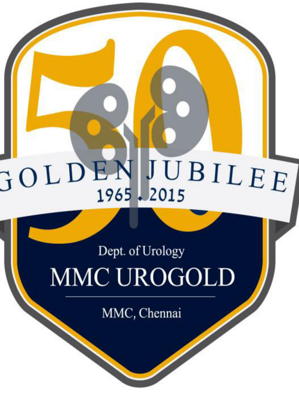


Introduction

Renal infarct is a rare and often under-diagnosed condition. One has to consider this diagnosis in case of unexplained flank pain, especially in patients with risk factors for thromboembolism

Clinical Presentation

45 years male presented with right loin pain and fever for 3 days. No h/o hematuria.
No co-morbidities/surgeries/trauma. He is a chronic smoker and alcohol consumer for the past 30 years. General examination and abdominal examination normal, blood pressure normal.

Laboratory Workup

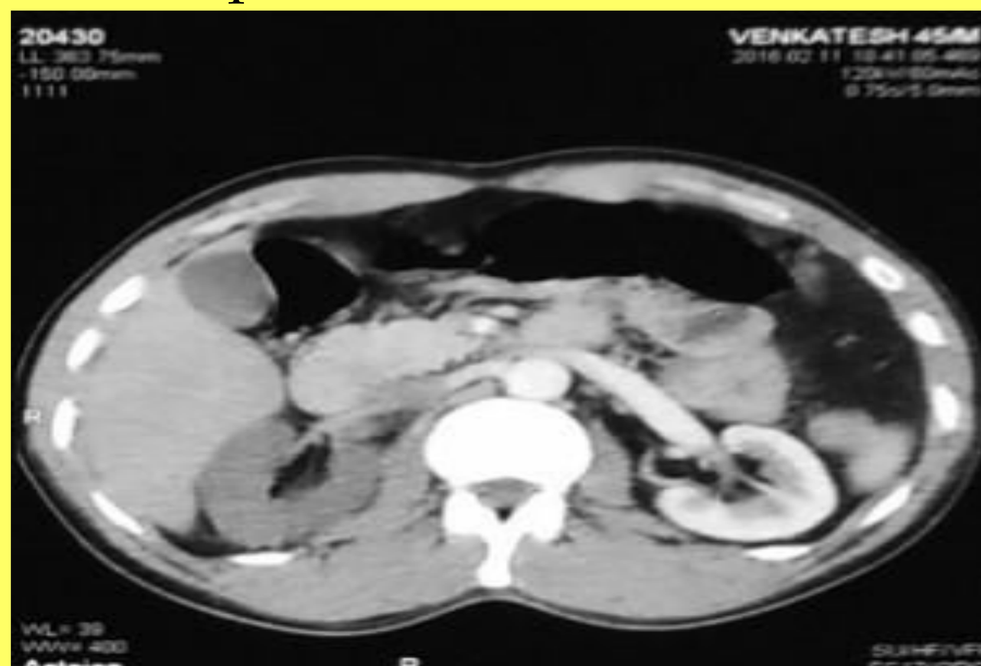
- TC- 17900/mm^3
- Polymorphs- 85%
- Serum creatinine- 1.3-1.7-1.4
- Urinalysis- 5-8RBC/HPF
- Serum LDH- 875IU/L
- Coagulation profile normal
- APLA , ANA negative

Doppler USG

Complete absence of perfusion of right kidney

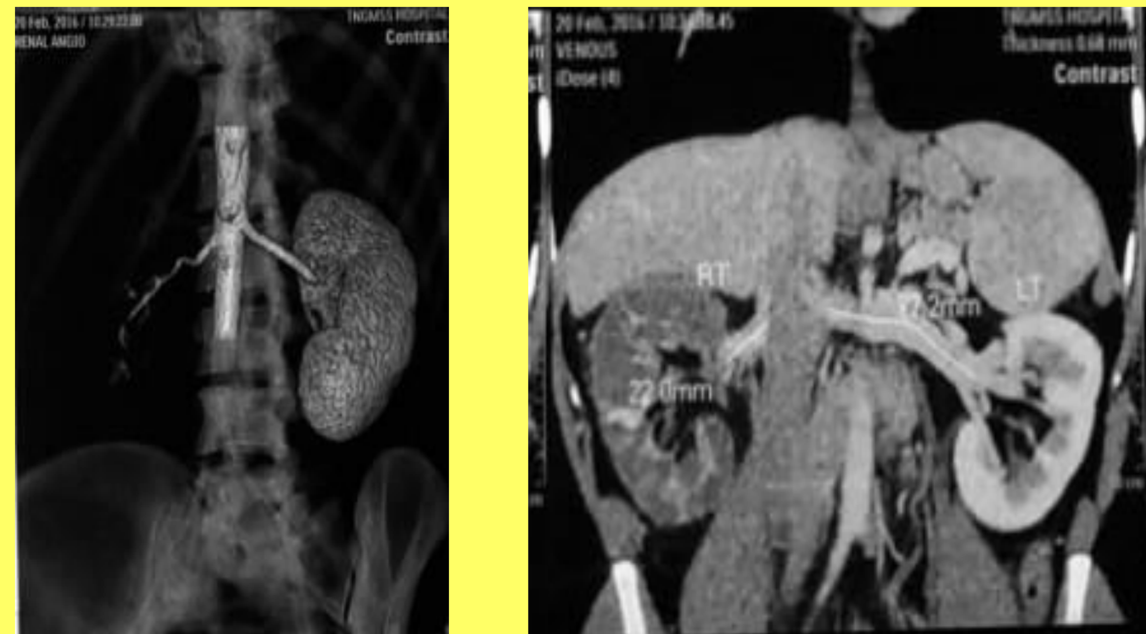
CECT KUB

Non visualisation of right kidney due to lack of contrast uptake



CT ANGIOGRAM

Absence of flow in rt main renal artery with global infarct of rt kidney



TREATMENT

- Injection heparin 80mg/kg iv bolus followed by 15mg/kg/hr infusion
- Switched on later to oral warfarin 4mg/day
- INR-2.15

TAKE HOME MSG

- **High index of suspicion needed for diagnosis**
- **Negative NCCT with unexplained hematuria – consider CECT**
- **Triad- flank pain, +/-hematuria, raised LDH, risk of thromboemboli- RENAL INFARCT TO BE CONSIDERED**

Discussion

- Incidence 0.2%
- Causes- thromboemboli from atrial fibrillation, infective endocarditis, DCM, aortic/renal artery dissection, FMD, trauma, iatrogenic, transplant, vasculitis, APLA syndrome, Cocaine abuse
- Clinical features-
  - ✓Mean age at presentation – 65yrs
  - ✓Sex/laterality- no significant predominance
  - ✓flank pain, hematuria, flank tenderness, new onset hypertension
  - ✓Presence of risk factors for thromboembolism
- Lab Evaluation
  - ✓Leukocytosis
  - ✓Mild elevation of serum creatinine
  - ✓Hematuria-50%
  - ✓Proteinuria- 45%
  - ✓Elevated serum LDH -100%
- Imaging
  - ✓ USG-3% sensitive
  - ✓CECT -80%sensitive- ***cortical rim sign, flip flop sign***
  - ✓CT angio- 100% sensitive
  - ✓Isotope scan -97% sensitive
- Management
  - ✓Anticoagulation –Heparin- UFH/LMWH, warfarin
  - ✓Antihypertensives- ACEI, ARBs most suitable
  - ✓Thrombolysis/thrombectomy- no prospective trials
- Follow up – isotope scan, ECHO, INR
- Prognosis- most have normal renal function, persistent hypertension in some
- Differential diagnosis- acute pyelonephritis, nephrolithiasis, other surgical causes of acute abdomen

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