

Patient Name : Mr.RAM MILAN Visit No : CHA250042999  
Age/Gender : 47 Y/M Registration ON : 10/Mar/2025 12:49PM  
**Lab No : 10140294** Sample Collected ON : 10/Mar/2025 12:49PM  
Referred By : Dr.DURGESH PUSHKAR Sample Received ON :  
Refer Lab/Hosp : CHARAK NA Report Generated ON : 10/Mar/2025 02:39PM

**RENAL DOPPLER STUDY**

*Compromised assessment due to excessive bowel gases, inadequate breath holding and co-existing renal parenchymal disease.*

**Renal Doppler**

- Gray scale imaging of the kidneys was done follow by analysis of renal vasculature in colour Doppler.

**Gray Scale**

- Both kidneys are normal in size, shape & position. Right kidney measures 103.6 x 45.0 mm. Left kidney measures 120.3 x 52.7 mm. **Bilateral renal cortical echogenicity is raised with blurring of cortico-medullary differentiation at places.** No obvious calculus is seen. No hydronephrosis is seen.

**Colour and pulsed Doppler study**

- *Bilateral main renal arteries could not be very well visualized from origin upto renal hila; however, renal arteries at hila and their segmental branches show maintained colour flow.*
- Doppler parameters are as follows:-

|                              | RIGHT      |      |          | LEFT       |      |          |
|------------------------------|------------|------|----------|------------|------|----------|
|                              | PSV (cm/s) | RI   | AT (sec) | PSV (cm/s) | RI   | AT (sec) |
| Renal artery at hilum        | 56.5       | 0.85 | 0.04     | 64.3       | 0.83 | 0.04     |
| Upper polar Segmental artery | 27.8       | 0.86 | 0.03     | 17.2       | 0.83 | 0.03     |
| Mid polar Segmental artery   | 32.3       | 0.90 | 0.03     | 22.5       | 0.84 | 0.03     |
| Lower polar Segmental artery | 11.6       | 0.84 | 0.02     | 15.4       | 0.81 | 0.04     |

**OPINION:**

- **RAISED BILATERAL RENAL PARENCHYMAL ECHOGENICITY WITH BLURRING OF CORTICO-MEDULLARY DIFFERENTIATION AT PLACES - RENAL PANREHCYMAL DISEASE.**
- **RAISED VALUES OF RESISTIVE INDEX (RI≥0.75) IN BILATERAL RENAL VESSELS AS DESCRIBED - LIKELY DUE TO RENAL PARENCHYMAL DISEASE.**
- **NO OBVIOUS INDIRECT EVIDENCE OF SIGNIFICANT RENAL ARTERY STENOSIS.**

*Note: The above assessment is based on indirect method of analysis of doppler parameters namely AT (acceleration time) and RI (resistive index) in segmental branches alone. Direct visualization of main renal arteries was not a part of this study. Co-existing renal parenchymal disease can alter the values of these parameters. Possibility of renal artery stenosis cannot be ruled out based on indirect assessment of doppler parameters*



|                |                      |                     |                       |
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alone due to low negative predictive value.

CT renal angiography is gold standard investigation to rule out possibility of renal artery stenosis.

Clinical correlation is necessary.

[DR. JAYENDRA K. ARYA, MD]

Transcribed By: RACHNA

\*\*\* End Of Report \*\*\*

CHARAK

