

*Is early CKD are more likely to die of cardiovascular (CV) disease than they are to progress to ESRD – A study from a tertiary care hospital from Central India*

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### Abstract

**Aim:** As CKD progresses, the risk of CV disease becomes increasingly exaggerated—with an increasing excess of arrhythmia, sudden cardiac death and congestive cardiac failure . This excess of CV disease is intrinsically linked to cardiac structural and functional abnormalities, which start to develop early in CKD. In order to know the early changes in cardiac structure this study was conducted in tertiary care hospital of delhi NCR.\

**Material & Methods:** A study were conducted on 54 patients with Chronic Kidney Disease admitted in Dept of Nephrology and organ transplantation , Sharda superspecialty hospital . All patients were subjected to Renal Function Tests, echocardiography and all other relevant routine investigations.

### Results:

- A total of 54 patients were studied of which 70.38% were males and 29.62% females.
- The mean age of the patients was  $47.97 \pm 15.24$  years.
- The mean hemoglobin level was  $8.98 \pm 1.52$  mg/dl
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- 42.59% of the studied patients were having ckd due to diabetic kidney disease.
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- The Cardiovascular abnormalities observed were LVH (37.9%), Diastolic dysfunction (6%), pericardial effusion (20.68%), and Valvular lesions (51.3%),
- Among Diabetics the Cardiovascular abnormalities observed were LVH (44.4%), Diastolic dysfunction (11.1%), pericardial effusion (22.2%), Valvular lesions (55.5%), .
- The prevalence of cardiovascular abnormality in stage II, IIIB, IV, and V was 3.4%, 3.4, 10.4%, and 55% respectively.
- Mitral regurgitation AND tricuspid present regurgitation in 24.13% and 27.58% of patients.
- ALL patients with low Hemoglobin level were having cardiac abnormalities in our study.

### Conclusion:

- Cardiovascular abnormalities increases with increasing stages of CKD.
- Most of the Cardiac abnormalities were in patients of stage V of CKD.
- Male patients of ckd have more cardiac abnormalities as compare to female patients with ckd.
- Valvular lesion was the most common cardiovascular abnormality in our study.
- The prevalence of LVH and Valvular lesion were high in Diabetics as compared to non-diabetics (p value <0.02 & <0.1 respectively).
- Most common valvular heart disease was Tricuspid regurgitation in our study.



- Patients with anemia has high prevalence of cardiac abnormalities in ckd patients on hemodialysis.

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## Biography

Professor Dr. Punit Gupta is MBBS, MD (Medicine), DM (Nephrology) and PhD. He is the Honorary Nephrologists to the Governor of Chhattisgarh State since 2009. He is Chairman and Members of many important academic and management committees of various Government Medical Institutions in the country and the Pt. Deen Dayal Upadhyay Health Sciences University, Raipur. He has guided over 100 Postgraduate & Technologist student for their thesis & Project in Nephrology & Research and also served as an examiner for the university examinations. A man of researches and publication, he has presented more than 160 research papers and abstracts on Kidney Diseases in Tribal populations at Renowned National and International Conferences. He was felicitated for being the only research scholar who had presented 29 abstracts in Indian Society of Nephrology conference, Pune and 11 research papers at Asia Pacific congress of Nephrology, 2008 in Malaysia on tribal kidney diseases. His Oral Paper was awarded first prize in ISNCON 2007, New Delhi. He was awarded internationally prestigious APCN Developmental awards in Malaysia 2008 and a Follow Scholarship by International Society of Peritoneal Dialysis in Turkey 2008. His paper was recognized as a best Paper in API 2014, Bhillai. He was awarded Certificate of Excellence awards by the Times of India groups 2016. His work was appreciated with certificate of appreciation by

Indian Dietician association 2016. He was felicitated by Agrasen Agrawal Samaj for his excellent work in Tribal Population 2016. He was honoured with excellence award by 'Z' TV Chhattisgarh for this distinguish work in kidney disease in rural population of Chhattisgarh in 2017. He has developed a concept of Teledialysis, first of its kind in Asia. He has developed Portable dialysis

Machine (MAKE-D) for 60 billion kidney patients in world who require dialysis many times in a week. He has developed an abdominal Pressure Measurement Scale, which is very useful of Continuous Ambulatory Peritoneal Dialysis Patients (type of dialysis). He has developed and economic, efficient and effective walkie talkie system for consultation and directions to the hospital staff and doctors. He has been awarded Dr. B. C. Roy National Award for his research to give Aid or Assistance to Research Project for the year 2016