

A Commentary on “A Comparison Between Two Different Definitions of Contrast-Associated Acute Kidney Injury for Long-Term Mortality in Patients with Chronic Kidney Disease Undergoing Coronary Angiography” [Letter]

Jiawei Xu, Lu Ye

The Third Affiliated Hospital of Zhejiang, Chinese Medical University, Hangzhou, Zhejiang, People's Republic of China

Correspondence: Lu Ye, The Third Affiliated Hospital of Zhejiang, Chinese Medical University, Hangzhou, Zhejiang, 310009, People's Republic of China, Email 59843771@qq.com

Dear editor

We have read with great interest the article titled “A Comparison Between Two Different Definitions of Contrast-Associated Acute Kidney Injury for Long-Term Mortality in Patients with Chronic Kidney Disease Undergoing Coronary Angiography”.¹ While this study provides valuable contributions to the field, additional considerations could enhance the robustness and applicability of the findings.

Firstly, the study explores the relationship between contrast-associated acute kidney injury (CA-AKI) and long-term mortality in patients with chronic kidney disease (CKD) undergoing coronary angiography. However, it does not mention the specific types and dosages of contrast media used. The type and dosage of contrast media are risk factors for the development of CA-AKI in patients with impaired renal function. For instance, the use of ionic high-osmolar contrast media or higher doses of contrast media increases the risk of CA-AKI.^{2,3} The failure to specifically analyze the contrast media may affect the precision of the study results and the customization of treatment plans.

Secondly, there are multiple causes for acute kidney injury (AKI) following angiography, and AKI may be incorrectly attributed to contrast media. For example, catheter-based procedures can complicate the post-intervention period due to hemodynamic instability and cholesterol embolization or renal artery thrombosis caused by catheter manipulation.⁴ These can lead to post-intervention AKI, which is often misconstrued as CA-AKI.⁵ Therefore, it is crucial to exclude clinically confounded cases during patient enrollment, which can significantly improve the reliability of the results.

To enhance patient care, a multidisciplinary approach should be adopted for managing CA-AKI in the future. This can be achieved by establishing a collaborative treatment team that includes interventional specialists, cardiologists, nephrologists, and nursing professionals to provide more comprehensive and effective management strategies. Such a team-based approach leverages the expertise of different professionals to address the complex and multifaceted challenges associated with CA-AKI, thereby improving patient outcomes through integrated treatment plans.

In conclusion, this article makes a valuable contribution to the study of CA-AKI. However, to maximize the potential of such research, a broader collaborative effort is required. It is hoped that future studies will incorporate a wider perspective to deepen our understanding of CA-AKI.

Disclosure

The authors report no conflicts of interest in this communication.

References

1. Feng W, Zhou J, Lun Z, et al. A comparison between two different definitions of contrast-associated acute kidney injury for long-term mortality in patients with chronic kidney disease undergoing coronary angiography. *Clin Interv Aging*. 2024;19:303–311. doi:10.2147/CIA.S452882
2. Barrett BJ, Carlisle EJ. Metaanalysis of the relative nephrotoxicity of high- and low-osmolality iodinated contrast media. *Radiology*. 1993;188(1):171–178. doi:10.1148/radiology.188.1.8511292
3. Azzalini L, Poletti E, Lombardo F, et al. Risk of contrast-induced nephropathy in patients undergoing complex percutaneous coronary intervention. *Int J Cardiol*. 2019;290:59–63. doi:10.1016/j.ijcard.2019.04.043
4. Wichmann JL, Katzberg RW, Litwin SE, et al. Contrast-induced nephropathy. *Circulation*. 2015;132(20):1931–1936. doi:10.1161/CIRCULATIONAHA.115.014672
5. Newhouse JH, Kho D, Rao QA, et al. Frequency of serum creatinine changes in the absence of iodinated contrast material: implications for studies of contrast nephrotoxicity. *AJR*. 2008;191(2):376–382. doi:10.2214/AJR.07.3280

Dove Medical Press encourages responsible, free and frank academic debate. The content of the Clinical Interventions in Aging 'letters to the editor' section does not necessarily represent the views of Dove Medical Press, its officers, agents, employees, related entities or the Clinical Interventions in Aging editors. While all reasonable steps have been taken to confirm the content of each letter, Dove Medical Press accepts no liability in respect of the content of any letter, nor is it responsible for the content and accuracy of any letter to the editor.

Clinical Interventions in Aging

Dovepress

Publish your work in this journal

Clinical Interventions in Aging is an international, peer-reviewed journal focusing on evidence-based reports on the value or lack thereof of treatments intended to prevent or delay the onset of maladaptive correlates of aging in human beings. This journal is indexed on PubMed Central, MedLine, CAS, Scopus and the Elsevier Bibliographic databases. The manuscript management system is completely online and includes a very quick and fair peer-review system, which is all easy to use. Visit <http://www.dovepress.com/testimonials.php> to read real quotes from published authors.

Submit your manuscript here: <https://www.dovepress.com/clinical-interventions-in-aging-journal>

<https://doi.org/10.2147/CIA.S510094>