June 11,2013

Dear Editor,

Please find enclosed the edited manuscript in Word format (file name: Edited 3240-review.doc).

Title: Imaging in renal trauma: A review

Author: Madhukar Dayal, MD, Shivanand Gamanagatti, MD, Atin Kumar, MD, Department of Radiology, All India Institute of Medical Sciences, Ansari Nagar, New Delhi , 110029, India.

Name of Journal: *World Journal of Radiology*

ESPS Manuscript NO: 3240

The manuscript has been improved according to the suggestions of reviewers:

1 Format has been updated

2 Revision has been made according to the suggestions of the reviewer

(1) Reviewer 00227564

Thanks for your valuable comments; we have revised all the necessary formatting and typing mistakes as highlighted. We have also made point to point correction as explained.

- **Comment** - At MRI said that MRI fails to provide excretory information, I think it is wrong as Gd enhanced MRI can provide details about the excretory function and contrast leakage.
- **Reply** – the line has been replaced with "It provides only limited excretory information as dilution of excreted contrast leads to poor resolution superimposed with poor breath holding capabilities of these patients".
- **Comment** – In Fig.1 why authors not commented upon the associated perirenal hematoma. In Fig.2 why you not grade it as infarction means segmental branch occlusion (Grade IV).
- **Reply** – these images were only meant to describe the various terminologies and their imaging appearance and not to totally grade the injury. A full grading were done in later images where grade wise images are displayed.
- **Comment**- Fig 8 is the same as Fig 2. Fig 11- Is UPJ injury grade 4 or 5 in the new classification.
- Fig 13. It seems to be pseudoaneurysm than contrast extravasation.
- **Reply** – sir with due respect, regarding the first comment, these two images are not same, the findings are same involving the same side kidney both showing segmental infarction, but the first image was used to describe the appearance while the second was to describe the grade in which segmental infarction would fit in. we have added the revised classification alongside the original wherever needed, so in UPJ is now grade 4 injury. Figure 13 as pointed, is showing extravasation as confirmed on the delayed image which showed spreading of contrast with increase in density.

(2) Reviewer 00214317

- **Comment-** There is different references discussing the same entity. What is the new in your manuscript comparing to other references?
- **Reply** - respected sir, the articles quoted in references are the only few of the better articles that provide in depth grading and management issues of renal injury. With further development of imaging modalities and dedicated trauma centers, we think this type of review articles are

frequently needed to provide the readers with different imaging spectrum and consolidate their knowledge in the same. We also have mentioned the recent changes in the grading of renal injury, not much described in other references.

- **Comment** - Abstract: Add classification of renal trauma and what is the suggested imaging modality for each category Body: Figure citation within the manuscript must be beside the imaging description of the lesion not besides heading

- **Reply** – we have incorporated a line describing the grading system in the abstract. Though there are several imaging modalities present, MDCT is the most commonly used and is the modality of choice now days. We have highlighted this in the abstract too. Apart from these we have made all the necessary formatting in the text and references.

(3) Reviewer 00227565

- **Comment –** the authors discussed the role of CT and its techniques in terms of multislice CT. Why you don't mention MDCT, with its volume acquisition advantage, rapid imaging and high resolution although you are displaying a lot of reconstructed CT images, later on.

- **Reply –** We fully appreciate your comment and thanks for your word of encouragement. Sir, perhaps now day's most new CT scanners are multidetector with cabability of volume aqusition. Multislice and multidetectors are frequently used interchangeably. Yes, to clarify for the readers we have added some text in this regard as you suggested.

- **Comment -** On Page 14: There is no figure carrying this label ((Figure 14). On Page20: For figure 3: Multiple arrows encircling the subcapsular haematoma to differentiate it from the surrounding peri-renal hematoma will be more clarifying for the authors' ideas. Good luck for the authors.

- **Reply –** possibly there was some problem with the uploading of the image, this figure has been reloaded and in figure 3 arrows indicating perinephric hematoma has been added.

(4) Reviewer 00012499

Thank you for your valuable comments. We have limited the subtitles to only those necessary as indicated by you and have made all the point to point corrections as highlighted and revised the formatting as well.

Comment - describe the IVP method in more detail (it is mentioned in the abstract of the table.

Reply – the IVP as a method of imaging in trauma is now rarely performed and basically is to look for PCS injury if any. Hence we have not dealt in much about this procedure and have focused on only the more relevant examinations.

(5) Revieweer 00289542

Respected sir, we appreciate your review and comments. It has really helped us in improving and formatting our article. Most of the formatting and typing errors have been taken care of and edited to requirement**.**

- **Comment** - Investigators addressed the imaging modalities of renal trauma. The provided the advantages/disadvantages of several modalities and provided images focused on almost one modality. The investigators ignored the important role of CE-MRI in assessing the extent of injury, perfusion and angio.

- **Reply** – though there are various imaging tools available, MDCT leads the race well ahead. It is the most widely available, most easily performed, most well interpreted, least time consuming and in any setup most cost effective modality. Review was targeted covering all the modalities but focusing on the primary one. MRI has been used only in the settings where CT or CT contrast is contraindicated. We have provided several relevant MRI images also in this article. Administration

of contrast in MRI leads to added cost burden and is not routinely performed. We have no great experience with perfusion or angio with MRI and also have not been described in much detail in other similar articles. Authors believed that this review should be targeted to the most commonly used modality for clearer understanding of the readers. We certainly acknowledge that with time and increasing use of CEMRI we will definitely come up with update and review highlighting the role of CEMRI mostly.

- **Comment** - 4) What makes this review different from recently published reviews (REF 1,2)? 5)
- **Reply** - respected sir, the articles quoted in references are the only few of the better articles that provide in depth grading and management issues of renal injury. With further development of imaging modalities and dedicated trauma centers, we think this type of review articles are frequently needed to provide the readers with different imaging spectrum and consolidate their knowledge in the same. We also have mentioned the recent changes in the grading of renal injury, not much described in other references.
- **Comment** - Please provide the volume of contrast media in CECT (CECT scan protocol).
- **Reply** - we have added the line depicting the volume of contrast to be injected.

3 References and typesetting were corrected

Thank you again for publishing our manuscript in the *World Journal of Gastroenterology.*

Sincerely yours,

Dr Shivanand Gamanagatti
Associate Professor of Radiology
Department of Radiology
JPNA trauma Center
All India Institute of Medical Sciences, Ansari Nagar
New Delhi -110029
India
Email:shiv223@rediffmail.com
Ph: +91-11-26594567
Fax: +91-11-2658-8663/8641