

March 12, 2014

Dear Editor,

Please find enclosed the edited manuscript in Word format (file name: 8854-review.doc).

Title: MRI in Central Nervous System Infections- A Patterned approach

Author: Rangarajan K, Das CJ, Kumar A, Gupta AK

Name of Journal: World Journal of Radiology

ESPS Manuscript NO: 8854

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

Our itemized response to reviewer's comments is as follows:

Reviewer # 1:

This manuscript reviews the advanced MRI techniques helping in the differential diagnosis of CNS infections in immune-compromised patients. The review paper is interesting and clearly written in good English and there are many Figures (MRI images) and Flow Charts illustrating the points made by the authors.

Response: thank you very much.

Minor points 1.A list of abbreviations used might be helpful for the general reader. There are some abbreviations needing clarification: ADC, FNAC, NAA, SW.

Response: The abbreviations are expanded accordingly

2. Page numbers are needed at least to locate possible mistakes. 2. Once an abbreviation is introduced it might be used always throughout the manuscript and not sometimes.

Response: Page numbers added. Uniformity of abbreviation is maintained throughout.

3.Use "encephalitis" instead of "encephalitis"

Response: "encephalitidis" changed to "encephalitis".

4.Fig 8 Legend: Change "matabolites" to "metabolites"

Response: "matabolites" changed to "metabolites".

5.MRI Angiography: it might be better "Tubercular vasculitis results in extensive infarction due to inflammation of vessels coursing through the basal exudates".

Response: This change has been incorporated.

6.It might be better: "...thus do not contribute to signal production."

Response: This change has been incorporated.

7.Reference 6 might be modified including the publisher information: "Publisher: Lippincott Williams & Wilkins; Third edition (January 15, 2002)".

Response: This change has been incorporated.

Reviewer # 2:

The manuscript is written in a clear and comprehensive manner. The authors focus on major findings and keep the manuscript short. Also, with the pictures included and the flowcharts provided, the manuscript is a welcome teaching compendium for both the interested clinician as well as the neuroradiologist in training. The manuscript merits publication as a short review, however it would greatly profit from addressing one major and multiple minor issues prior to publication.

Response: Thank you very much!

Major: The manuscript would greatly profit from the inclusion of images of potential differential diagnoses (i.e. neoplasms, lymphomas etc. for each and every section of the four basic types of lesions: ring enhancing lesions, basal ganglia space occupying lesions, grey matter hyperintensities, white matter hyperintensities). This would add to the usefulness of the review and would allow the reader to fully appreciate the difference in imaging representation of all differential diagnoses presented by the authors. In all sections the differential diagnosis of primary brain tumor should be discussed shortly and its exclusion for the list of differential diagnoses explained sufficiently. This should also be included in the flow charts at the end of each section.

Response: Primary neoplasm and lymphoma are included along with their imaging and MRS features and discussed accordingly wherever deemed necessary.

Minor: 1. Abbreviations should be preceded by full length explanations (i.e. FNAC page one, 1st paragraph, last but one line). This should be preceded by "fine- needle aspiration cytology");

Response: This change has been incorporated.

other examples: 1.1. SW- imaging (page 4, 1st paragraph, 3rd lane) (susceptibility weighted imaging)

Response: This change has been incorporated.

1.2. Fluid attenuated inversion recovery (FLAIR): page 3, legend to figure 4, 1st lane.

Response: This change has been incorporated.

1.3. ADCs page 9, 1st paragraph, 2nd lane etc.

Response: This change has been incorporated.

2. The language used is sometimes too colloquial. The authors should refrain from using colloquial terms (i.e. ... adding fuel to the fire; page 1, 1st paragraph, 3rd lane; and The "workhorse" ..., page 1, 2nd paragraph, 1st lane). These terms and other colloquial terms should be replaced by proper scientific terms.

Response: Colloquial terms have been changed to scientific terms.

Figure 17: The authors should indicate the elevated peaks for lipid, lactate and choline in the spectroscopy provided.

Response: This change has been incorporated.

Figure 22: If the legend to the figure is correct, the authors mismatched the corresponding images! This needs clarification.

Response: This change has been incorporated.

Reviewer # 3:

SPECIFIC COMMENTS The review presents a simplified approach to CNS infections using advanced high resolution MR sequences that would help quick characterization of these infections.

Response: Thank you very much.

Minor remarks: ? The technical appearance of the manuscript should be improved in order to match adequate form for WJR (writing title, subtitles, pagination, justification, paragraphs space, etc.)

Response: The manuscript is further modified.

? Figures should also have uniform appearance, for example: Fig. 2-5, and Fig. 8 have no frame, while Fig. 6, 7, 9-12 have frame.

Response: This change has been incorporated.

In some Figures a, b, c marks are missing and in others these marks are written with, and sometimes without brackets.

Response: This change has been incorporated.

? Identifications a, b, c in Figure 2 are missing.

Response: This change has been incorporated.

? In Figure 1, 13, 19, 21, and 24 authors should avoid artistic look of the presented material. One could easily tell that Figure were made from previous Power Point presentations. In Journals such content should be presented in black and white with maximum attention to visibility (font, pt. size, text box size, etc.). New Figures should be made.

Response: This change has been incorporated.

? Technical errors: writing number and unit together, omitting space after the dot or comma. Inadequate writing of bracket contents in MR Spectroscopy part. Some subtitles are written all in uppercase, while others are written in sentence case.

Response: These changes are incorporated in the manuscript.

? Delete "Displayed as an educational exhibit in ECR2013" after Figs. 1-5. ?

Response: Deleted

Pagination and number of text lines are missing.

Response: Pagination included

? Use of abbreviations: insert explanations for FINAC, FLAIR, SW, etc.

Response: This change has been incorporated.

? Some of the references are inadequate and some new should be added

Response: Few new references have been incorporated.

Major remarks:

? It is highly unusual that Introduction part of Review paper is consists of 4 paragraphs of text followed with 5 Figures. More textual explanation is needed between Figures.

Response: This change has been incorporated.

? First cited reference is on the 4th page of the manuscript which is also highly unusual. Introduction part should start with adequate background information and citation.

Response: This change has been incorporated.

? There is a lack of explanation regarding "Multi-parametric" as well as "A Simplified Patterned" approach

Response: This change has been incorporated.

Thank you again for considering our manuscript in the *World Journal of Radiology*.

Sincerely yours,

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