OPEN PEER REVIEW

Open Peer Review (OPR)

As a new feature for progressing towards transparency, we decided to open a new window for all of our editors as well as authors titled "**Open Peer Review**". We hope by this new facility, our reviewers will be more motivated and authors will be more satisfied with the review process. We believe that publishing our peer review reports could make a transparent and clear environment for all our efforts within a journal, but not all reviewers tend to publish their comments.

What is "Open Peer Review" process?

An "Open Peer Review" process is making the details of all review process (including reviewers, associate editors, and EICs comments) as "Public" as it is agreed by EIC, Authors, and reviewers.

Advantages of "Open Peer Review" process

- More transparency, constructiveness and tactful comments of the peer review process: leads to an increase in the quality of reviews
- More motivations for all involved roles in the review process
- Authors' satisfactions from the review process: Increases honesty between authors and reviewers
- Education of both authors and new students
- Prevents reviewers from following their individual agendas and leading to the detection of reviewers' conflicts of interests

You can find out more at:
https://brieflands.com/briefland/knowledgebase/category/tree.html#opr.html

Shiraz E-Medical Journal
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Peer Review Report for "The Impact of Radiofrequency Waves on Male Infertility: A Systematic Review"

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Review Timeline:

Submit Date: 25 Mar 2020
Revised Date: 15 Jul 2020
Accepted Date: 26 Sep 2020

Revision (0)

Here, you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

alireza mehdizadeh: Associate Editor | **Revision** (0) — 4 Jul 2020

Dear EIC,
The manuscript is studied, and there are some comments which should be addressed by the author. According to the comments, the document needs major revision.
Kind regards,

REFEREE: EIC | **Revision** (0) — 4 Jul 2020

Dear Author,
The reviewers' comments are mentioned. Please correct the details as mentioned above carefully according to reviewers' request.
Thanks.

OPEN PEER REVIEW

Revision (1)

Reply to Reviewers

Ideally, the reviewing process can significantly improve the submitted manuscripts by allowing the authors to take into account the advice of reviewers. Author(s) must reply to all reviewers' comments in a separate Word file, point by point. A "**Reply to Reviewers**" document is submitted along with revised manuscript during submission of revised files, summarizing the changes that the authors made in response to the reviewers' comments. The responses to reviewers' comments specifies how the authors addressed each comment the reviewers made.

You can read the authors' responses to the reviewers' comments in the next page.

Title: the impact of radiofrequency waves on male infertility: a systematic review

Manuscript ID:101741

Comments to the Author	AUTHOR RESPONSE & ACTION TAKEN:
authors have a similar publication in 2018 which was addressed and refered in this paper.procedure of systematic review seems Ok however I cant find the CONSORT register number in the manuscript.	
authors should explain some background and potential mechanism of RF induced infertility and also it is necessary to look on physical aspect of RF wave , for example SAR, Frequency,... or at least working status of mobile phone, stand by, talking,... in different study before comparing the results.	The mechanism of action of mobile electromagnetic waves that cause testicular dysfunction is still unknown. Possible causes of: Mobile phone are divided into two general categories: 1. thermal effects 2. Non-thermal effects. Physiologically, testicular temperature needs to be 2 degrees lower than environment temperature for optimal testicular function. Increasing the temperature caused by electromagnetic waves can be harmful to spermatogenesis. (Zhang , 2016). Non-thermal effects electromagnetic radiation radiofrequency mobile can be increase oxidative stress reactions and dysfunction or testicular structure. In vitro studies have shown that cell phone waves can increase ROS levels in spermatozoa (De Luiis 2009, Mailankot 2009). In addition, studies have shown that cell phone waves cause potential changes in sperm cell membranes, transductal signals and apoptosis, and DNA damage. It also changes the level of sex hormones. . (Agrawal, 2011). De Iuliis, G.N., Newey, R.J., King, B.V., Aitken, R.J., 2009. Mobile phone radiation induces reactive oxygen species

	production and DNA damage in human spermatozoa in vitro. PLoS One 4, e6446. Agarwal, A., Singh, A., Hamada, A., Kesari, K., 2011. Cell phones and male infertility: a review of recent innovations in technology and consequences. Int. Braz. J. Urol. 37,432–454. Mailankot,M., Kunnath, A.P., Jayalekshmi,H., Koduru, B., Valsalan, R., 2009. Radio frequencyelectromagnetic radiation (RF-EMR) from GSM (0.9/1.8 GHz) mobile phones induces oxidative stress and reduces sperm motility in rats. Clinics 64,561–565.
there are a few systematic review and also metaanlysis in this topic, so author should evaluate their results , in discussion section.	But based on a meta. Analysis -study of lui et al In human studies, cell phone use in was not associated with semen volume (N = 2), sperm motility (N = 4), sperm concentration (N = 4), or normal morphology (N = 3). However they reported In the in vitro studies , As for the animal studies, sperm concentration and motility influenced by RF radiation exposure. RF exposure is a risk factor for sperm motility and viability (Lui et al,2014) . in this regard the result meta analysis study Adam et al on experimental *in vitro* and observational *in vivo* studies by used ten studies shown that, Exposure to mobile phones was associated with reduced sperm motility (mean difference − 8.1%

	(95% CI − 13.1, − 3.2)) and viability (mean difference − 9.1% (95% CI − 18.4, 0.2)), But it has no effect on sperm concentration.. Liu K, Li Y, Zhang G, Liu J, Cao J, Ao L, Zhang S. Association between mobile phone use and semen quality: a systemic review and meta-analysis. Andrology. 2014 Jul;2(4):491-501. Adams JA, Galloway TS, Mondal D, Esteves SC, Mathews F. Effect of mobile telephones on sperm quality: a systematic review and meta-analysis. Environment international. 2014 Sep 1;70:106-12.
it is better to synthesize the results in term of table or any other abstracting from,.using so many subheading is boring and it is dificult for fast reading, keep in your mind that systematic review used for decision making by many different specialists with diverse back grounds in science and technology.	It seems that combining sub-headings spermatogram parameters in the results section can be more confusing. But the order of the sub-headings was modified according to your instructions.
Subheading priorities also not clarified, why we start from Progressive motile sperm and not from volume or morphology ?	The order of spermatogram quality in the results section was corrected, respectively included, the volume of semen, the total number of sperm, sperm concentration and morphology.....
in systematic review it is not necessary to explain all parts of selected papers in detail, but comparing the similar and different results and finding the cause of difference and similarity is more expected	It was done.
there are many "radiobiologic effect of RF" studies , but paper could not clarify the final message for reader or provide any specific recommendation. *I propose resubmitting the paper*	It was done.

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Revision (1)

Here, you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

alireza mehdizadeh: Associate Editor | **Revision** (**1**) 23 Sep 2020

Dear EIC
Based on the authors' answers to the reviewers' comments, the reviewer(s) have recommended publication.
Kind regards.

REFEREE: EIC | **Revision** (**1**) 26 Sep 2020

Dear Author,
The document is reviewed carefully by the reviewers. According to their comments and your revisions as requested, this manuscript is accepted.
Thanks.