Author’s response to reviews

Title: Structural changes of the macula and optic nerve head in the remaining eyes after enucleation for retinoblastoma: an optical coherence tomography study

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Author’s response to reviews:

Reply for Reviewer 1:

GENERAL COMMENTS:

1- Several parts of introduction, results and discussion were removed to avoid long paper and focusing on the important points.

2- Table 1 is informative as you told, preservation of it is essential because it compares the three groups demographic data which is not present in the text.

Other tables also essential parts of the paper because also it compares all data which were mostly significant and we removed all repeated data from text.

3- In the heading of the p-value columns, the groups compared put in brackets below to be easier for the analysis of the table.

4- It is essential to put group (II) which is the group of retinoblastoma who had free clinical eyes to be a base line group for comparison because no available data in literature about the retinal thickness and structural changes in those patients, only there is one report about functional changes by Lubin’ski et al 2002 titled ‘Electroretinographic changes in the inner retinal layers of the retained eyes of patients with sporadic unilateral retinoblastoma’. Ophthalmic Genetics – 2002, Vol. 23 No. 2, pp. 99–107
They concluded that Inner retinal layer dysfunction may be a characteristic feature of individuals with unilateral sporadic retinoblastoma. This highlight the question of that retinoblastoma eyes might be deficient in structure also and we had to investigate it.

SPECIFIC TO THE TEXT:

1- By revising the reference, I was found that percentage of unilateral cases was of specific to their population and paper. We removed this data.

2- The machine had no normative data and we mentioned that under the methodology section.

   We mentioned also the software for segmentation NAVIS-EX Image Filing software which was under the optic nerve head scan.

   All study population was Egyptian and this was mentioned in methods section.

   We reviewed the discussion and remove unnecessary data.

   No genetic testing used and this was mentioned in methods section.

Reply for Reviewer 2:

General

We removed unnecessary data in introduction, results and discussion with no duplication.

Methods of optic nerve head and macula scans are the core of the study based on it all results were obtained, unfortunately removal of it will affect the paper very much as in the methodology we have to mention what was done accurately.

Specific

109 and 116: Patients in group (II) old treated retinoblastoma with one eye free (studied eye) however we exclude radiotherapy treated patients for fear of affection of optic nerve or the macula by irradiation field, also we excluded those who had large tumors or affecting the macula because there will be sensory amblyopia of the treated eyes and in the literature there were many paper published on the effect of amblyopia on retinal structure of the other non amblyopic sound eye. So we avoid those patients to avoid the effect of ambyopia. Also we avoid recent cases
because those will be still under chemotherapeutic agents which have a possibility to affect the retinal structure and circulation and this effect is transient and limited to the period of use and also there is no possibility to photograph those patients as in this young age, we need handheld OCT which is not available in our unit.

Group A treated with transpupillary thermotherapy long time ago.

127: SAP possible at 10 years and the study included 9 children in group 1 and 8 children in group II who were cooperative and the test repeated for three times for each child and was reliable.

151: OCT possible in all our patients started from age of 5 years.

205: We added the median and range.

298: There is a difference between RBp function between human and animal.

There is no difference in function between RBp function between human and animal.

‘The retinoblastoma (RB) families of proteins are found in organisms as distantly related as humans, plants, and insects. These proteins play a key role in regulating advancement of the cell division cycle from the G1 to S phases. This is achieved through negative regulation of two important positive regulators of cell cycle entry, E2F transcription factors and cyclin dependent kinases. In growth arrested cells transcriptional activity by E2Fs is repressed by RB proteins.’


Mice deficient for RB are nonviable and show defects in neurogenesis and haematopoiesis.


Also mutation in RB gene in mouse can result in neural cell death and defective erythropoiesis.


424 This reference studied the quality of life of retinoblastoma patients and what they worried about and the authors found that two things those patients were worried about: development of other malignancies and the vision preservation in the remaining eye which is dependent on normal retinal and eye structures, this highlight the importance of having good vision in the remaining free eyes to depend on throughout their lives.
structural changes in the macula and RNFL in OCT occurred early by few years before the patient complaining or functional damage.