Author’s response to reviews

Title: Retinal and Choroidal Thickness in Paediatric Patients with Hypoalbuminaemia Caused by Nephrotic Syndrome

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Author’s response to reviews:

Dear editor(s),

Thank you very much for your letter and advice. We have revised the paper, and would like to re-submit it for your consideration. We have addressed the comments raised by the reviewers, and the amendments are highlighted in red in the revised manuscript. We hope that the revision is acceptable, and I look forward to hearing from you soon.

With best wishes,

Yours sincerely,

Liu Yang

First of all, we would like to express our sincere thanks to the reviewers for the constructive and positive comments.

Replies to reviewer 1, Dr. Savige are as follows:

1. We’ve reduced the usage of abbreviations in the revision.
2. The controls were duly coded, age- and sex-matched. The controls were healthy children and met the exclusion criteria described in the article (as in page 6).

3. The most common variables affecting choroidal thickness of children are age, body height, body weight, body mass index, axial length and refractive error. Body height, body weight, body mass index and axial length are negatively correlated with choroidal thickness, while the refractive error is positively correlated with choroidal thickness [1], which is in accordance with our results.

The choroidal thickness was reported to decrease with age in adult [2]. But it's controversial among children. Some studies showed that subfoveal choroidal thickness was negatively correlated with age [1,3]. It is because the axial length of the eye increases with age. But other studies found that choroidal thickness increased significantly from early childhood to adolescence[4-5]. This may reflect normal growth in the vascular and connective tissue structure of the choroid, or could represent changes in blood flow with age.

4. We agree with you that the location is less precisely measured. We have modified the data to 1 decimal figures.

5. Nephrotic syndrome is not uncommon in China, it accounts for about 20% of hospitalized children with urinary system diseases[6].

The patients in the study were all diagnosed as nephrotic syndrome according to the diagnostic criteria: heavy proteinuria (urinary protein excretion $\geq$ 50 mg/kg per 24 hours, or urine protein/creatinine $\geq$ 2 mg/mg, or 3+ to 4+ protein in the urine at least 3 times a week), serum albumin < 25 g/L [6]. Because we mainly focused on the effect of serum protein concentration on choroidal and retinal thickness, patients who had been treated were also included in the study and their albumin level was higher than 25 g/L.

6. Albumin is the main constituent of colloid osmotic pressure in blood vessels and tissues. But there are other proteins that also play a role in this process. This might explain that the correlation between total protein and subfoveal choroidal thickness was better than that of albumin in multiple regression.

References


