

Comment on: Comparison of serum sodium and potassium levels in patients with senile cataract and age-matched individuals without cataract

Sir,

We read with great interest the study by Mathur and Pai^[1] entitled, "Comparison of serum sodium and potassium levels in patients with senile cataract and age-matched individuals without cataract," in which the authors showed that higher serum sodium level is associated with increased risk of senile cataract. We believe that the authors should be congratulated for the great work as the results suggested that high sodium intake could be a risk factor of senile cataract, and underlined the importance of low salt diet, which is in accordance with a recent study on a large population in Korea.^[2]

Their study was undoubtedly well designed and conducted. However, we would like to point out that the study only evaluated serum sodium level. Although the serum sodium may have correlation with dietary sodium intake, it does not exactly reflect the amount of sodium intake. Total sodium intake can be estimated using urinary sodium to creatinine ratio (U[Na⁺]/Cr) of a spot urine sample.^[3] Bae *et al.*^[2] revealed the association between age-related cataract and dietary sodium intake by measuring U[Na⁺]/Cr. If the urine test could not be done, subjective dietary questionnaires could be helpful, as shown in a study which demonstrated the association between sodium intake and cataract.^[4]

They also assumed that alteration in serum sodium level might cause alteration in sodium concentration in aqueous humor, which might affect the development of cataract.^[1] To prove this postulate, it would be helpful to collect the aqueous humor sample from the cataract patients before surgery and evaluate the correlation between the sodium concentration in aqueous humor and the severity of cataract. Studies using animal models would also be interesting.

Although patients with systemic diseases affecting serum sodium level were excluded in their study,^[1] we are afraid that the possibility cannot be completely ruled out that patients who do not aware of their metabolic diseases or those with subclinical diseases were accidentally included in the study. In these cases, detailed questionnaire and screening tests including blood chemistry panel could be valuable tools.

We believe that the authors can achieve even greater work in further studies with a larger population that include detailed patient questionnaire and laboratory tests including blood chemistry, urinalysis, and analysis of aqueous humor.

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Conflicts of interest

There are no conflicts of interest.

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