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Letter to the Editor concerning “Serum Periostin Level Reflects Progression of Ossification of the Posterior Longitudinal Ligament” by Kawaguchi et al.

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To the Editor:

We found the article by Kawaguchi et al. (1), who recently concluded that the higher serum periostin (POSTN) reflected progression of the ossification of the progression longitudinal ligament (OPLL) and that the increased POSTN level in OPLL may be due to increased osteogenesis in the spinal ligament through Wnt/ β -catenin signaling, quite interesting. However, we have some concerns regarding this study.

First, due to the association between POSTN and ossification, extremity osteoarthritis (OA) may be a confounding factor affecting the outcome. However, the authors only excluded severe OA and did not rigorously evaluate the OA of the extremities.

Second, the authors suspected that the high serum POSTN level in patients with OPLL was due to enhanced osteogenesis of the spinal ligament via Wnt/ β -catenin signaling. However, users of osteoporosis drugs, such as parathyroid hormone and anti-sclerostin antibodies (2,3), which affect Wnt/ β signaling, should be excluded when selecting patients.

Third, there was no relationship between the serum POSTN level and the OS index, and the OS index was only an indicator of the degree of ectopic osteogenesis of the spinal ligaments. However, there have been conflicting results in patients with a high OS index, who often have systemic OA with increased osteogenic activity. Furthermore, the study also contained few descriptions of the OS index and serum POSTN level, so a further analysis would be desirable.

Finally, there is still an unmet need for a novel and effective therapeutic drug to treat OPLL. The authors showed that POSTN was a positive biomarker that reflects OPLL progression. It has also been reported that both POSTN and OPLL are associated with inflammation (4). POSTN has been shown to be a potential therapeutic target for inflammatory diseases, but it may also be a potential therapeutic target for OPLL.

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References

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Conflict of Interest: None Declared