


## Commentary



### Corresponding Author

Hyeun-Sung Kim

 <https://orcid.org/0000-0001-5361-5234>

Department of Neurosurgery, Nanoori Hospital Gangnam, 731 Eonju-ro, Gangnam-gu, Seoul 06048, Korea  
Email: neurospinekim@gmail.com, neuros@hanmail.net

See the article “Complications and Management of Endoscopic Spinal Surgery” via <https://doi.org/10.14245/ns.2346226.113>.



This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (<https://creativecommons.org/licenses/by-nc/4.0/>) which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

Copyright © 2023 by the Korean Spinal Neurosurgery Society

# Commentary on “Complications and Management of Endoscopic Spinal Surgery”

Hyeun-Sung Kim<sup>1</sup>, Pang Hung Wu<sup>2</sup>, Il-Tae Jang<sup>1</sup>

<sup>1</sup>Gangnam Nanoori Hospital, Spine Surgery, Seoul, Korea

<sup>2</sup>National University Health System, Juronghealth Campus, Department of Orthopaedic Surgery, Singapore

The increase in the elderly population has resulted in a rapid increase in degenerative spinal diseases, and it is necessary to introduce a suitable spinal surgery method. The development of spinal endoscopic surgery is rapidly developing along with these demands, but related complications are also increasing due to the lack of educational courses and difficulties in training in spinal endoscopic surgery.<sup>1-3</sup>

In the March issue of *Neurospine*, the special issue of endoscopic spinal surgery was conducted with the theme of “The road to expansion and standardization of Endoscopic Spine Surgery”, in particular, “Complications and Management of Endoscopic Spinal Surgery” reported by Ju et al.<sup>4</sup> can be said to be a very important and interesting study in terms of anticipating the expansion of spinal endoscopic surgery, and I was able to enjoy the authors’ reports and arguments with interest.

According to reports by Ju and Lee,<sup>4</sup> endoscopic spinal surgery can also cause complications in all parts similar to open surgery, but, in cervical area, it is reported that serious complications occur less in the posterior compared to the anterior approach, and, compared to the uniportal approach, reports of complications related to the biportal approach are lacking.

In addition, the occurrence of overall complications occurs in less than 10%, and it is said that the incidence of life-threatening complications is less than that of open surgery. This is to say that the operation can be performed more safely compared to the existing open surgery, but, on the contrary, it also means that better treatment results can be derived through sufficient reports on complications related to endoscopic spinal surgery.

However, as the author said, some complications can be major complications that can lead to life-threatening complications such as lower extremity paralysis, so care must be taken in the decision and technique of endoscopic spinal surgery. Various techniques that can solve the problem have already been introduced, so even if complications occur, it is considered necessary to use them for appropriate treatment.<sup>5</sup>

Ju and Lee<sup>4</sup> state that there are insufficient reports of complications related to current endoscopic spinal surgery in this study. Currently, the development of spinal endoscopic surgery is developing in a wide range of degenerative spinal diseases, and there is no doubt that it will become a major treatment technique for future spinal surgery and treatment. However, in order for this technique to be universalized, it is considered important to develop an understanding of complications and the ability to solve them through numerous

studies, as well as a sufficient educational process.

- **Conflict of Interest:** The authors have nothing to disclose.

## REFERENCES

1. Wu B, Yang L, Fu C, et al. Global trends and hotspots in endoscopic discectomy: a study based on bibliometric analysis. *Neurospine* 2022;19:1093-107.
2. Bae J, Kim JS. Building a successful practice of endoscopic spine surgery: learning, setting the goal, and expanding the border. *Neurospine* 2022;19:571-3.
3. Gadjradj PS, Vreeling A, Depauw PR, et al. Surgeons learning curve of transforaminal endoscopic discectomy for sciatica. *Neurospine* 2022;19:594-602.
4. Ju CI, Lee SM. Complications and management of endoscopic spinal surgery. *Neurospine* 2023;20:56-77.
5. Kim HS, Raorane HD, Wu PH, et al. Incidental durotomy during endoscopic stenosis lumbar decompression: incidence, classification, and proposed management strategies. *World Neurosurg* 2020;139:e13-22.