

# Removal of a gardening pole penetrating the vicinity of the internal carotid and vertebral arteries

Nanami Fujita<sup>1</sup>, Kensuke Shimada<sup>2,3,4</sup>, Akimasa Kajino<sup>5</sup>, Ryota Inokuchi<sup>6</sup>, Shuichi Kawada<sup>7</sup>, Shunsuke Ishitsuka<sup>1</sup>, Masato Yamada<sup>8</sup>

<sup>1</sup>Department of Anesthesiology, Tsuchiura Kyodo General Hospital, Tsuchiura, Japan

<sup>2</sup>Transrational Research Promotion and Education Center, Tsukuba Clinical Research and Development Organization, University of Tsukuba, Tsukuba, Japan

<sup>3</sup>Department of Anesthesiology, University of Tsukuba Hospital, Tsukuba, Japan

<sup>4</sup>Graduate School of Comprehensive Human Sciences, University of Tsukuba, Tsukuba, Japan

<sup>5</sup>Department of Head and Neck Surgery, Saitama Prefectural Cancer Center, Kita-Adachi, Japan

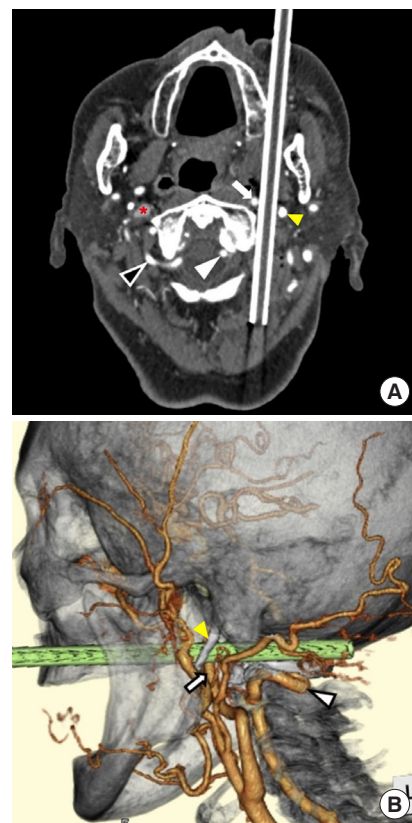
<sup>6</sup>Department of Health Services Research, Faculty of Medicine, University of Tsukuba, Tsukuba, Japan

<sup>7</sup>Department of Radiology, Tsuchiura Kyodo General Hospital, Tsuchiura, Japan

<sup>8</sup>Department of Otorhinolaryngology, Head and Neck Surgery, Tsuchiura Kyodo General Hospital, Tsuchiura, Japan

A woman in her 90s was admitted with a gardening pole penetrating her left cheek. She was walking in her garden and fell on the gardening pole (metal cylinder, 9 mm in diameter, 37 cm in length). On arrival, she had normal vital signs, clear consciousness, no paralysis, and no significant bleeding. She had no significant medical history other than osteoporosis. Contrast-enhanced computed tomography imaging showed that the pole had penetrated approximately 14 cm from the left cheek into the left posterior neck and passed between the left internal carotid artery and the left styloid process (left internal carotid artery: arrow, left vertebral artery: white arrowhead, and left styloid process: yellow arrowhead) (Fig. A and B). Although the left transverse process of the atlas (C1) was fractured, her left vertebral artery and internal jugular vein were not injured since the vertebral artery abnormally entered the spinal canal at the caudal portion of C1 and the internal jugular vein was hypoplastic (right vertebral artery [normal]: black arrowhead and

right internal jugular vein [normal]: red asterisk) (Fig. A and B). After confirming the absence of vascular damage through an angiogram under general anesthesia, the otolaryngologist re-



Image

#### Correspondence: Kensuke Shimada

Transrational Research Promotion and Education Center, Tsukuba Clinical Research and Development Organization, University of Tsukuba Hospital, 2-1-1 Amakubo, Tsukuba, Ibaraki 305-8576, Japan  
 E-mail: kensukeshimada.s@gmail.com

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moved the pole manually. She was discharged without complications after 1 week.

## NOTES

### Conflict of interest

No potential conflict of interest relevant to this article was reported.

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### Ethical approval

The report was approved from the Ethics Committee of the Tsuchiura Kyodo General Hospital on February 28, 2024 (2023FY184).

### Patient consent

Written informed consent was obtained from the patient before uploading this manuscript and images.

## ORCID

Nanami Fujita	<a href="https://orcid.org/0009-0005-8186-3434">https://orcid.org/0009-0005-8186-3434</a>
Kensuke Shimada	<a href="https://orcid.org/0000-0002-2106-0753">https://orcid.org/0000-0002-2106-0753</a>
Akimasa Kajino	<a href="https://orcid.org/0009-0000-5244-367X">https://orcid.org/0009-0000-5244-367X</a>
Ryota Inokuchi	<a href="https://orcid.org/0000-0001-6343-2298">https://orcid.org/0000-0001-6343-2298</a>
Shuichi Kawada	<a href="https://orcid.org/0000-0001-8428-823X">https://orcid.org/0000-0001-8428-823X</a>
Shunsuke Ishitsuka	<a href="https://orcid.org/0009-0008-6830-7638">https://orcid.org/0009-0008-6830-7638</a>
Masato Yamada	<a href="https://orcid.org/0009-0004-6334-6129">https://orcid.org/0009-0004-6334-6129</a>

## Author contributions

Writing - original draft: Nanami Fujita, Akimasa Kajino, Ryota Inokuchi, Shuichi Kawada, Shunsuke Ishitsuka, Masato Yamada. Writing - review & editing: Kensuke Shimada. Visualization: Shuichi Kawada. All the authors have provided written consent for publication.