

RE: Hemopericardium Following Acupuncture?

Tae-Hun Kim, Kun Hyung Kim, Jung Won Kang, and Myeong Soo Lee

Korea Institute of Oriental Medicine, Daejeon, Korea.

Received: January 3, 2011

Accepted: January 13, 2011

Corresponding author: Dr. Myeong Soo Lee,
Korea Institute of Oriental Medicine,
1672 Yuseongdae-ro, Yuseong-gu,
Daejeon 305-811, Korea.
Tel: 82-42-868-9266, Fax: 82-42-868-9370
E-mail: drmslee@gmail.com

· The authors have no financial conflicts of
interest.

Dear Sir,

Kim, et al.¹ reported a case of hemopericardium following acupuncture by an unauthorized acupuncturist. This report documents the case of a female patient who had a thoracostomy and was transferred to the emergency department of the authors' hospital. The patient's hemopericardium was discovered by CT after thoracostomy. The authors reached the diagnosis of "traumatic hemopericardium with right-sided pneumothorax related to acupuncture" because of the patient's experience with acupuncture before thoracostomy and the radiological findings after thoracostomy.

To improve the quality of case reports regarding the possible dangers of acupuncture, we suggest additional comments from the perspective of acupuncture experts. First, information on the depth and direction of needle insertion in the thoracic region seems crucial to assessing the causal relationship of acupuncture for hemopericardium in this case, if available. Several traditional and modern studies have warned against inserting needles perpendicularly in acupuncture points of the thoracic region and have urged only superficial or oblique needle insertion in order to avoid fatal organ penetration.^{2,3}

However, this report does not provide any clues to identify whether needle direction or depth is sufficient to have caused hemopericardium. Given that the presented event might be due to nonadherence to safety guidelines and improper use of acupuncture by an unauthorized acupuncturist lacking professional medical training, this information is crucial. In future case reports relevant to acupuncture, we suggest referring to relevant items in the Consolidated Standards of Reporting Trials (CONSORT) Extension for details about acupuncture needling whenever this information is available.⁴

Second, further evaluation through CT scan and description regarding whether any anatomical deformity (i.e., sternal foramen) was found is necessary to investigate the possibility of unexpected needle penetration, as reported in a previous case report by Kirchgatterer, et al.⁵ In 10% of men and 4% of women, the sternal foramen can be located on the CV 17 acupuncture point,³ one of the needled points in this case. As previous case reports have shown that anatomical deformities can lead to cardiac tamponade after acupuncture,⁶ the authors should have thoroughly investigated and reported whether a sternal foramen contributed in this case.

Finally, the authors appeared to confuse acupuncture point CV 13 or CV 14 with ST14 (when referring to the lower 3 cm points from the mid lower xiphoid process border in the case report). It is important to use the exact terminology for acupuncture points when studying it clinically, especially when reporting on the harm

© Copyright:

Yonsei University College of Medicine 2011

This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/3.0>) which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

caused by acupuncture, as this study does. This avoidable mistake might be prevented by referring to World Health Organization standard guidelines for acupuncture point locations.⁷

A case report is a useful method to reveal unexpected harm from certain treatments. If potentially associated factors are not sufficiently investigated and obvious causality is not investigated, case reports about the suspected adverse events may have only limited value, even they are published in major journals.⁸ To report and understand adverse events from acupuncture, future studies should stick to relevant CONSORT guidelines whenever possible, to provide essential information for assessing safety and to maximize the educational value of the case report.

Additionally, as the authors noted, the risk of serious adverse effects related to acupuncture is very low (0.05 per 10,000 patients).⁹ Well-trained, authorized acupuncture practitioners are very unlikely to cause serious harm such as what happened in this case.^{10,11} We suggest that fatal adverse events such as hemopericardium can be avoided through the appropriate and safe practice of acupuncture only in the hands of authorized and trained acupuncture experts.

REFERENCES

1. Kim JH, Kim SH, Lee YJ, Hong JS, Ahn R, Hong ES. Hemopericardium following acupuncture. *Yonsei Med J* 2011;52:207-9.
2. Korean Acupuncture and Moxibustion Society. The Acupuncture and Moxibustion. Paju city: Jipmoondang 2008.
3. White A, Cummings TM, Filshie J. Safe needling. An Introduction to Western Medical Acupuncture. Edinburgh: Churchill Livingstone/Elsevier; 2008. p.153-61.
4. MacPherson H, Altman DG, Hammerschlag R, Youping L, Taixiang W, White A, et al. Revised STANDARDS for Reporting Interventions in Clinical Trials of Acupuncture (STRICTA): extending the CONSORT statement. *PLoS Med* 2010;7:e1000261.
5. Kirchgatterer A, Schwarz CD, Höller E, Punzengruber C, Hartl P, Eber B. Cardiac tamponade following acupuncture. *Chest* 2000; 117:1510-1.
6. Halvorsen TB, Anda SS, Naess AB, Levang OW. Fatal cardiac tamponade after acupuncture through congenital sternal foramen. *Lancet* 1995;345:1175.
7. WHO Regional Office for the Western Pacific. WHO Standard Acupuncture Point Locations in the Western Pacific Region. Manila: World Health Organization; 2008.
8. Loke YK, Price D, Derry S, Aronson JK. Case reports of suspected adverse drug reactions--systematic literature survey of follow-up. *BMJ* 2006;332:335-9.
9. White A. A cumulative review of the range and incidence of significant adverse events associated with acupuncture. *Acupunct Med* 2004;22:122-33.
10. White A, Hayhoe S, Hart A, Ernst E; BMAS and AACP. British Medical Acupuncture Society and Acupuncture Association of Chartered Physiotherapists. Survey of adverse events following acupuncture (SAFA): a prospective study of 32,000 consultations. *Acupunct Med* 2001;19:84-92.
11. MacPherson H, Thomas K, Walters S, Fitter M. The York acupuncture safety study: prospective survey of 34000 treatments by traditional acupuncturists. *BMJ* 2001;323:486-7.

AUTHOR'S REPLY

Corresponding author: Dr. Sun Hyu Kim,
Department of Emergency Medicine, Ulsan University Hospital,
University of Ulsan College of Medicine, 290-3 Jeonha-dong,
Dong-gu, Ulsan 682-714, Korea.

Thank you for your review and most helpful suggestions.

First, the acupuncture point, a point 3 cm lower than the mid lower xiphoid process border, is not ST 14, but CV 13 or CV 14, as you pointed out. We apologize for this inaccurate terminology.

Second, it is difficult to obtain precise information on the depth and direction of needle insertion in the thoracic region, because the patients did not know and the unauthorized acupuncturist refused to answer that question. Therefore, it is difficult to provide the detailed information required by the CONSORT extension. However, we expect that the depth of needle insertion was more than the shortest depth, i.e., - 4.5 cm, if the depth was estimated from skin to the pericardium in the supine position based on the CT image.

In addition, the sternal foramen at the corresponding CV 17 point was confirmed in the patient's CT axial image. However it cannot be concluded that hemopericardium occurred through the CV 17 point and sternal foramen, because the KI 22 point was another insertion area used in the thoracic region.

Any future reports related to acupuncture should provide precise information according to the CONSORT guidelines.