



OPEN ACCESS

EDITED AND REVIEWED BY
Pietro Ghezzi,
University of Urbino Carlo Bo, Italy

*CORRESPONDENCE

Ming-Hong Lin
✉ mlin@kmu.edu.tw
Chih-Hsing Hung
✉ pedhung@gmail.com
Chao-Hung Kuo
✉ jhkao@kmu.edu.tw

†These authors have contributed
equally to this work and share
first authorship

RECEIVED 31 July 2024

ACCEPTED 24 October 2024

PUBLISHED 12 November 2024

CITATION

Wang C-W, Chiou H-YC, Chen S-C, Wu D-W,
Lin H-H, Chen H-C, Liao W-T, Lin M-H,
Hung C-H and Kuo C-H (2024) Corrigendum:
Arsenic exposure and lung fibrotic changes-
evidence from a longitudinal cohort study
and experimental models.
Front. Immunol. 15:1473483.
doi: 10.3389/fimmu.2024.1473483

COPYRIGHT

© 2024 Wang, Chiou, Chen, Wu, Lin, Chen,
Liao, Lin, Hung and Kuo. This is an open-
access article distributed under the terms of
the [Creative Commons Attribution License
\(CC BY\)](#). The use, distribution or reproduction
in other forums is permitted, provided the
original author(s) and the copyright owner(s)
are credited and that the original publication
in this journal is cited, in accordance with
accepted academic practice. No use,
distribution or reproduction is permitted
which does not comply with these terms.

Corrigendum: Arsenic exposure and lung fibrotic changes- evidence from a longitudinal cohort study and experimental models

Chih-Wen Wang^{1,2†}, Hsin-Ying Clair Chiou^{3,4,5†},
Szu-Chia Chen^{2,6,7,8}, Da-Wei Wu^{2,9}, Hung-Hsun Lin³,
Huang-Chi Chen^{2,9}, Wei-Ting Liao^{7,10,11}, Ming-Hong Lin^{11,12,13*},
Chih-Hsing Hung^{7,14,15*} and Chao-Hung Kuo^{2,8,16*}

¹Division of Hepatobiliary, Department of Internal Medicine, Kaohsiung Medical University Hospital, Kaohsiung Medical University, Kaohsiung, Taiwan, ²Department of Internal Medicine, Kaohsiung Municipal Siaogang Hospital, Kaohsiung Medical University, Kaohsiung, Taiwan, ³Teaching and Research Center, Kaohsiung Municipal Siaogang Hospital, Kaohsiung Medical University, Kaohsiung, Taiwan, ⁴Kaohsiung Medical University Hospital, Kaohsiung Medical University, Kaohsiung, Taiwan, ⁵Department of Applied Chemistry, National Chi Nan University, Nantou, Taiwan, ⁶Division of Nephrology, Department of Internal Medicine, Kaohsiung Medical University Hospital, Kaohsiung Medical University, Kaohsiung, Taiwan, ⁷Research Center for Environmental Medicine, Kaohsiung Medical University, Kaohsiung, Taiwan, ⁸Faculty of Medicine, College of Medicine, Kaohsiung Medical University, Kaohsiung, Taiwan, ⁹Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, Kaohsiung Medical University Hospital, Kaohsiung Medical University, Kaohsiung, Taiwan, ¹⁰Department of Biotechnology, College of Life Science, Kaohsiung Medical University, Kaohsiung, Taiwan, ¹¹Department of Medical Research, Kaohsiung Medical University Hospital, Kaohsiung Medical University, Kaohsiung, Taiwan, ¹²Department of Microbiology and Immunology, School of Medicine, College of Medicine, Kaohsiung Medical University, Kaohsiung, Taiwan, ¹³M.Sc. Program in Tropical Medicine, College of Medicine, Kaohsiung Medical University, Kaohsiung, Taiwan, ¹⁴Department of Pediatrics, Kaohsiung Medical University Hospital, Kaohsiung Medical University, Kaohsiung, Taiwan, ¹⁵Department of Pediatrics, Kaohsiung Municipal Siaogang Hospital, Kaohsiung Medical University, Kaohsiung, Taiwan, ¹⁶Division of Gastroenterology, Department of Internal Medicine, Kaohsiung Medical University Hospital, Kaohsiung Medical University, Kaohsiung, Taiwan

KEYWORDS

arsenic, lung fibrosis, epithelial-mesenchymal transition, apigenin, LDCT images

A Corrigendum on

Arsenic exposure and lung fibrotic changes-evidence from a longitudinal cohort study and experimental models

By Wang C-W, Chiou H-YC, Chen S-C, Wu D-W, Lin H-H, Chen H-C, Liao W-T, Lin M-H, Hung C-H and Kuo C-H (2023). *Front. Immunol.* 14:1225348. doi: 10.3389/fimmu.2023.1225348

In the published article, there was an error in the **Data Availability statement**. “The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.” The correct **Data Availability statement** appears below.

“The datasets generated for this article are not readily available because of ethical restrictions. Requests to access the datasets should be directed to Dr. Chih-Wen Wang (e-mail: 960405@kmuh.org.tw).”

Furthermore in the published article, there was an error in **Figure 6B**. The concentration of NaAsO₂ should be labeled as 4 μM. The corrected **Figure 6** appears below.

There was also an error in the legend for **Figure 7** for NaAsO₂ concentration as published. The concentrations of NaAsO₂ used in **Figures 7A** and **7B** experiments were 4 μM and 1 μM respectively which are described in more detail in figure legend.

“(A) NHBE cells were pretreated with 2 μM and 10 μM apigenin for 2 hours followed by combined treatment with 1 μM NaAsO₂ for another 24 hours. The wound was made and the wound area at 0h and 12h after wound made were analyzed and expressed as Gap%. The representative images were shown. The data were expressed as Mean±SEM. All experiments were performed three times. *a*: statistical significance compared with control group; *b*: statistical significance compared with 1 μM NaAsO₂ group.” The corrected legend appears below.

“(A) NHBE cells were pretreated with 2 μM and 10 μM apigenin for 2 hours followed by combined treatment with 4 μM NaAsO₂ for another 24 hours. The wound was made and the wound area at 0h and 12h after wound made were analyzed and expressed as Gap%. The representative images were shown. The data were expressed as Mean±SEM. All experiments were performed three times. *a*: statistical significance compared with control group; *b*: statistical significance compared with 4 μM NaAsO₂ group.”

In the published article, there was an error in **Figure 7F** as published. The image of “apigenin” group is carelessly misplaced during figure organization and caused the image duplication. The corrected **Figure 7** appear below.

Lastly, a correction has been made to **Section 3.6 Apigenin reversed NaAsO₂-induced Fibrogenic changes *in vitro* and *in vivo***, Paragraph Number 1. This sentence previously stated:

“NHBE cells were pretreated with apigenin and followed by combined treatment with 1 μM NaAsO₂ for 24hrs.”

The corrected sentence appears below:

“NHBE cells were pretreated with apigenin and followed by combined treatment with NaAsO₂ for 24hrs.”

The authors apologize for these errors and state that this does not change the scientific conclusions of the article in any way.

Publisher's note

All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.

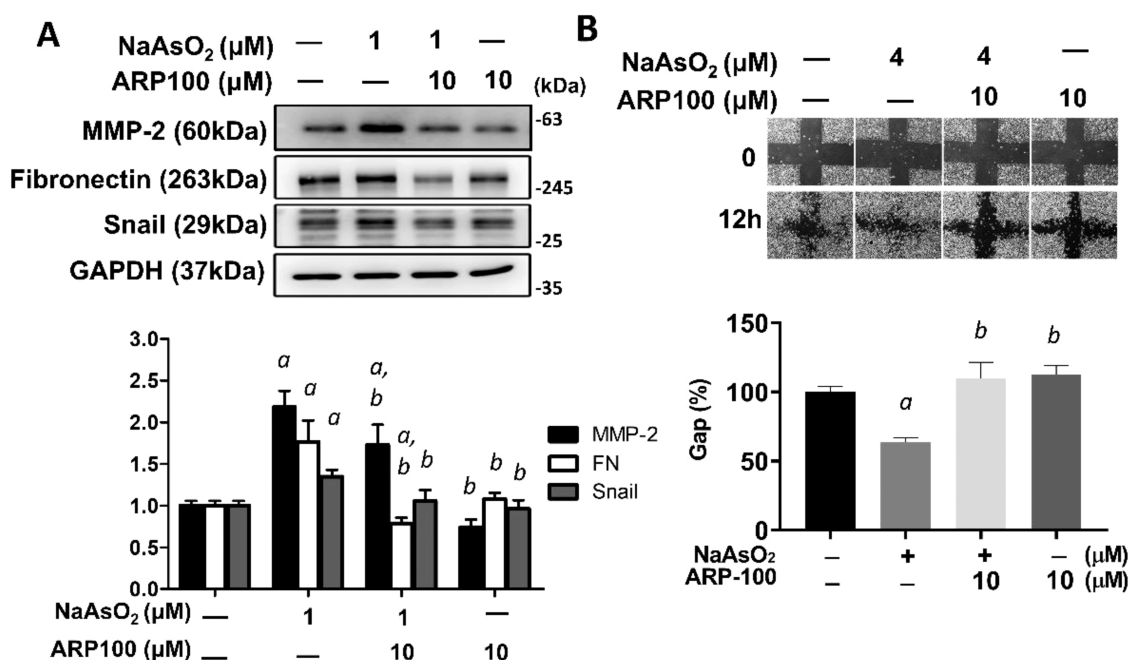


FIGURE 6 MMP-2 is critical for arsenic-induced EMT changes. (A) NHBE cells were pretreated with ARP100 2 hours before NaAsO₂ treatment. After another 24 hours of combined treatment, the cells were applied for western blot analysis and wound healing assay. ARP-100 reverse NaAsO₂-induced mesenchymal marker expressions (A) and cell migration (B). Each result was performed in three independent experiments. The data were expressed as Mean±SEM. *a*: *p*<0.05 compared to untreated control; *b*: *p*<0.05 compared to NaAsO₂ group.

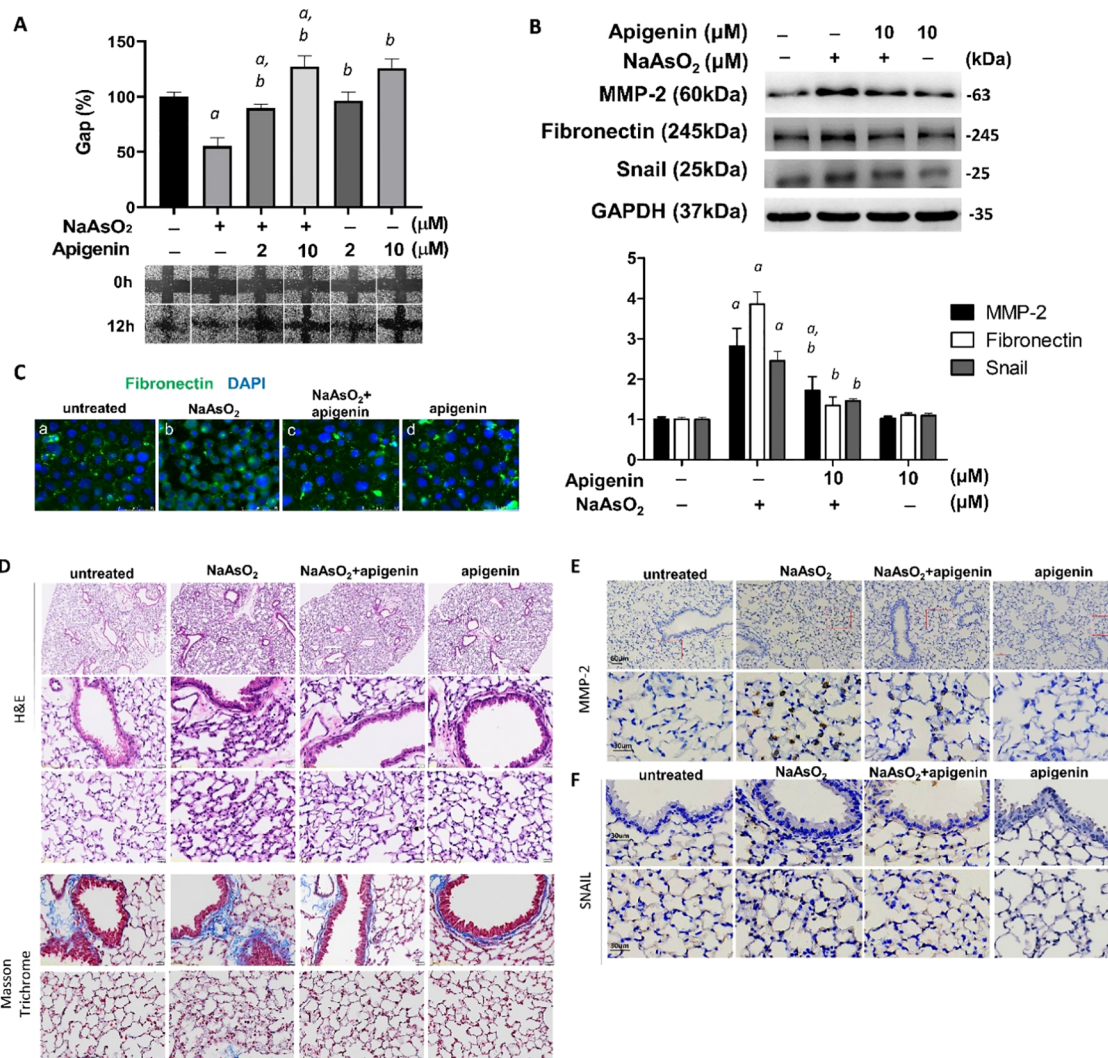


FIGURE 7

Apigenin reversed the NaAsO₂-induced mesenchymal cell markers expressions, cell migration, and lung fibrosis of mice. (A) NHBE cells were pretreated with 2 μM and 10 μM apigenin for 2 hours followed by combined treatment with 4 μM NaAsO₂ for another 24 hours. The wound was made and the wound area at 0h and 12h after wound made were analyzed and expressed as Gap%. The representative images were shown. The data were expressed as Mean ± SEM. All experiments were performed three times. a: statistical significance compared with control group; b: statistical significance compared with 4 μM NaAsO₂ group. (B) NHBE cells were treated with apigenin 2 hours prior 1 μM NaAsO₂ stimulation. After 24 hours of combined treatment, the cells were harvest for protein extraction and western blot analysis using antibodies as indicated. a: statistical significance compared with control group; b: statistical significance compared with NaAsO₂ group. (C) NHBE cells were treated with 10 μM of apigenin for 2 hours followed by combined treatment with 1 μM NaAsO₂ for additional 24 hours. The cells were fixed and applied for immunofluorescence against fibronectin. Green: fibronectin, blue: DAPI. Apigenin reversed the NaAsO₂-induced histopathological changes and mesenchymal markers in mice lung. C57BL/6 mice at 6–8 weeks of age were treated with 50 mg/L NaAsO₂ in the drinking water daily for 12 weeks with or without combined treatment with apigenin. (D) H&E stain, and Masson Trichrome stain, and immunohistochemistry against (E) MMP-2 and (F) Snail were shown.