

Beware the wrong way! A report on gastrografin inhalation

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CASE REPORT

An 83-year-old man was admitted to the Emergency Department of St. Anna University Hospital, Cona, Italy, after he had inhaled diatrizoate (gastrografin), a well-known hyperosmolar contrast agent, during an X-ray of the upper gastrointestinal tract. The family physician recommended the patient to take the test in order to demonstrate a possible hiatal hernia. While swallowing gastrografin he had an esophageal spasm (detected at fluoroscopy), which led to the inhalation of the contrast agent. After the episode, he was completely asymptomatic, eupnoeic, and with a good peripheral oxygen saturation. The physical examination was unremarkable. A chest X-ray of the lungs showed accumulation of the contrast agent in the distal bronchial tree (arrows in Figure 1A and B), with the right part being more involved because of the straight orientation of the right bronchus.

DISCUSSION

Inhalation of water soluble contrast agent during radiologic tests is an unusual occurrence; however, the few reported cases showed that patients may develop bronchospasm or even pulmonary edema and aspiration pneumonia [1–3].

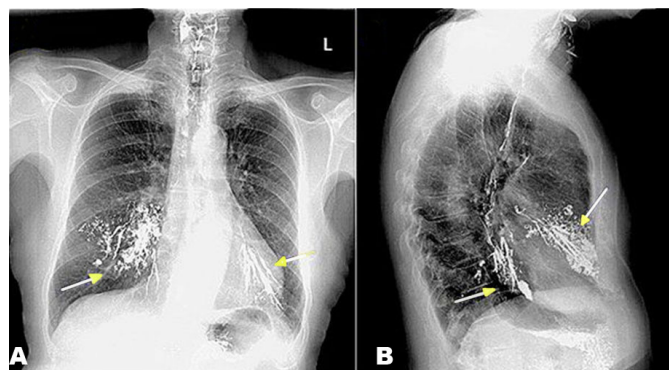


Figure 1: (A) and (B) A chest X-ray of the lungs showed accumulation of the contrast agent in the distal bronchial tree (arrows showing all the parts of the lungs involved by aspiration), with the right part being more involved.

CONCLUSION

No clinical abnormalities or short-term complications were noted in the patient herein reported. However, a cautionary treatment with parenteral steroid and clarithromycin therapy was performed. The patient was discharged in good health in less than 48 hours from admission.

Keywords: Aspiration, Gastrografin, Pneumonia

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Author Contributions

Matteo Guarino – Conception of the work, Drafting the work, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

Franco Alfano – Design of the work, Drafting the work, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

Edoardo Gambuti – Design of the work, Drafting the work, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

Benedetta Perna – Design of the work, Revising the work critically for important intellectual content, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

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Consent Statement

Written informed consent was obtained from the patient for publication of this article.

Conflict of Interest

Authors declare no conflict of interest.

Data Availability

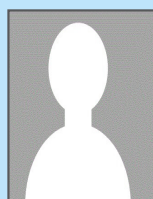
All relevant data are within the paper and its Supporting Information files.

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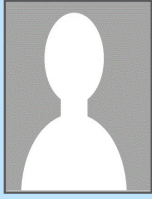
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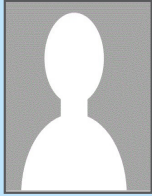
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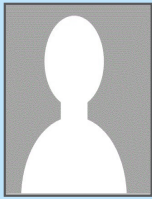
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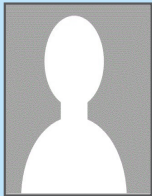
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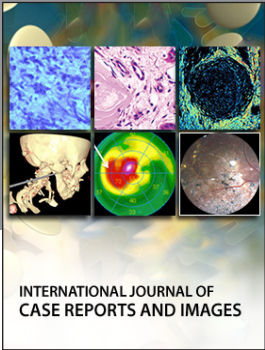
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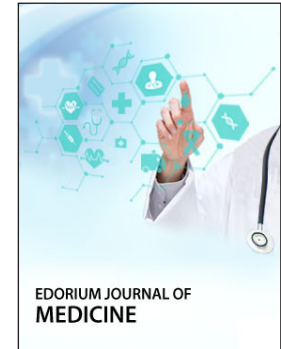
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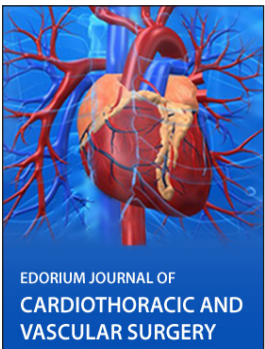
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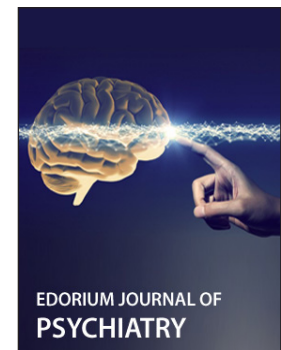
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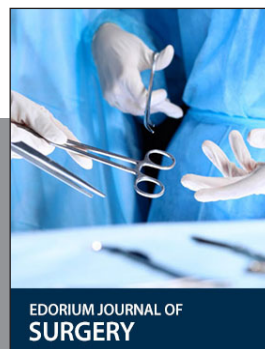
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