Dear Editor,

We read the paper by Stawicki and Deb on the bronchial nasoenteric tube misplacement with great interest, for what we would like to extend our thanks.[1] Nasogastric tube (NGT) or nasoenteric tube misplacement and complications related to them are almost always preventable issues. Despite the presence of various radiologic and endoscopic facilities, NGT-related complications are still present. The question is to recognize when, in which case, and for what signs and symptoms to use them. We would like to share another case of bronchial NGT misplacement.

A 49-year-old female patient with chronic renal failure corrected by dialysis was admitted with a 3-day history of abdominal pain. After physical and instrumental examinations, the patient was diagnosed with complicated acute appendicitis, for which open appendectomy was performed. Since the approach was gridiron incision, intraoperative manual control was impossible. The patient was transferred to the Intensive Care Unit postoperatively because of severe chronic disease and sepsis. On the 1st postoperative day, after extubation, the patient developed postoperative ileus, for what it was decided to insert a double lumen NGT. During NGT insertion at 30–35 cm, resistance was encountered. Chest X-ray was performed which revealed the tip of the NGT to be in the right superior lobar bronchus [Figure 1]. The tube was withdrawn and readvanced without any resistance. On control chest X-rays, no delayed complications were revealed. The postoperative course was uneventful and the patient was discharged on the 7th postoperative day.

In the treatment of postoperative ileus, NGT is one of the most effective measures. However, NGT placement in rare cases, especially in nonexperienced hands, can lead to specific serious complications, such as bronchial misplacement, lung perforation, esophageal perforation, pneumonia, and pneumothorax.[2] Several techniques and diagnostic measures have been reported, such as the SORT maneuver which is the mnemonic for the four main steps constituting the technique: sniffing position, NGT orientation, contralateral rotation, and twisting movement.[3] In the systematic review, Bennetzen et al. found Level 2B evidence for colorimetric capnography as an accurate method for verifying NGT placement with the sensitivity and specificity reaching 100%, nevertheless, with a concern that capnographs are not manufactured specifically to fit NGT and they have to be connected to the NGT by an adaptor system.[4] Despite the diversity of methods facilitating NGT placement, chest X-ray remains the gold standard. It is worth emphasizing that for experienced physicians, the most reliable way is clinical signs and symptoms and physical examination (auscultation) with the main rule “Do not proceed if you encountered resistance.” And this is probably the point when instrumental methods could be involved. In surgical practice, the best and the most accurate method is intraoperative NGT insertion with manual control.

To conclude, NGT tube placement can lead in rare cases to serious complications. In case if resistance is faced during the first attempt, chest X-ray should be performed. If during subsequent attempts resistance is encountered, other navigating or guiding diagnostic methods should be utilized.

Financial support and sponsorship
Nil.

Conflicts of interest
There are no conflicts of interest.

Mahir Gachabayov, Kubach Kubachev1, Dmitriy Neronov2
Departments of Abdominal Surgery and ICU and Anaesthesiology, Vladimir City Clinical Hospital of Emergency Medicine, Vladimir, 1Department of Surgery, North-Western State Medical University, St. Petersburg, Russia
REFERENCES

1. Stawicki SP, Deb L. Bronchial nasoenteric tube misplacement: Effective prevention, prompt recognition, and patient safety considerations. Int J Crit Illn Inj Sci 2016;6:156-160.

2. Gupta PK, Gupta K, Jain M, Garg T. Postprocedural chest radiograph: Impact on the management in critical care unit. Anesth Essays Res 2014;8:139-44.

3. Najafi M. Nasogastric tube insertion easily done: The SORT maneuver. Indian J Crit Care Med 2016;20:492-3.

4. Bennetzen LV, Håkonsen SJ, Svenningsen H, Larsen P. Diagnostic accuracy of methods used to verify nasogastric tube position in mechanically ventilated adult patients: A systematic review. JBI Database System Rev Implement Rep 2015;13:188-223.

This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

Cite this article as: Gachabayov M, Kubachev K, Neronov D. The importance of chest X-ray during nasogastric tube insertion. Int J Crit Illn Inj Sci 2016;6:211-2.