A flagrant case of scientific fraud

Un estrepitoso caso de fraude científico

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Scientific fraud is a reality, and although its frequency is not known, it is suspected to be far more common than actually detected.

Recently, a case has been identified that has had a great impact, and which has required the withdrawal of 88 articles published by Dr. Joachim Blodt in international journals (Annex 1). The triggering event was a series of denouncing letters, following the publication of an article (Joachim Boldt, Stephan Suttner, Christian Brosch, Andreas Lehmann, Kerstin Röhm, Andinet Mengistu. Anesthesia & Analgesia 2009;109:1752–62), reporting the suspected fraudulent generation of data. This led to an investigation and to the request for proof from Dr. Boldt, who failed to reply, and was thus unable to refute the accusations. The investigation was in turn extended to other publications in which he appeared as first signing author or as co-author, and resulted in the withdrawal of 88 articles—all in the setting of Intensive Care Medicine and Anesthesia.

The fundamental reason for the denouncement made by Steven L. Shafer, Editor-in-Chief of Anesthesia & Analgesia, was the lack of approval by the Ethics Committee—in this case the Landesärztekammer Rheinland-Pfalz—and the absence of randomization and of the signing of informed consent on the part of the patients. These publications were considered non-ethical, since their reference to the Ethics Committee had been falsified. At present a committee is conducting an investigation of the data in order to determine whether the findings of the articles are confirmed by the actual results obtained, apart from the issue of the falsification of approval from the Landesärztekammer Rheinland-Pfalz. Although there is information pointing to both the absence of patient randomization and the falsification of certain data, the results of the ongoing investigation to clarify the magnitude of the fraud are still pending. The situation may even have penal implications, as had already occurred in the case in Massachusetts involving the pain specialist Scott Reuben, who spent six months in prison.

This unfortunate situation involves aspects that generate morbid curiosity to which we do not wish to contribute; however, we consider that its importance justifies reporting the case to the readership of Medicina Intensiva.

We would like to use the opportunity to make some observations, which while already known, are no less pertinent—particularly at this time. We are referring to the reasons or motives, unjustifiable in all cases, which can lead to cases such as this one. The need to uphold personal prestige and ego among investigators may serve as an incentive for such fraudulent practices, though there are also more down to earth reasons such as curricular necessities or the obligation to obtain results that can serve to maintain or obtain institutional support to ensure continuity in the work of many investigators. Undoubtedly, another element to be taken into consideration is the implication of companies with enormous economical interests that can contaminate the relationship between scientists and business entities. In the case we are commenting, Dr. Bolt, whose study focused on hydroxyethyl starch, has conflicts of interest with several companies that produce the drug product. This relationship, while essential and strongly encouraged by the public health administrations, is fundamented upon a fragile balance in

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which the oblige goal must be the search for truth. How-
however, this objective is sometimes ambiguous, since there are
many nuances, probably justified by a lack of biological uni-
formity, which explains why something that works in certain
circumstances may not work in others—the tendency in such
cases being to generalize things.

It is important to underscore that scientific fraud not
only damages the credibility of the journal accepting the
manuscript, but also its readers, who may base changes in
their clinical practice on the conclusions drawn from the
fraudulent study—with the potential risk this poses for
patients.

To summarize, the present case must serve to reinforce
our demands for transparency and for precise formal obser-
vation of the ethical norms, which are always the best
guarantee of quality research.

Annex I.

List of articles withdrawn:

A.1. Acta Anaesthesiologica Scandinavica

- Mengistu AM, Mayer J, Boldt J, Röhm KD. Whole-blood
aggregometry: are there any limits with regard to platelet
- Röhm KD, Piper SN, Suttner S, Schuler S, Boldt J.
Early recovery, cognitive function and costs of a des-
flurane inhalational vs. a total intravenous anaesthesia
- Boldt J, Kumle B, Suttner S, Haisch G. Point-of-care (POC)
testing of lactate in the intensive care patient. Accuracy,
reliability, and costs of different measurement systems.

A.2. Anaesthesia

- Röhm KD, Riechmann J, Boldt J, Schuler S, Suttner SW,
Piper SN. Physostigmine for the prevention of postanaes-
thetic shivering following general anaesthesia – a placebo-controlled comparison with nefopam. Anaes-
- Piper SN, Röhm KD, Suttner SW, Maleck WH, Kranké P,
Boldt J. A comparison of nefopam and clonidine for the
prevention of postanaesthetic shivering: a comparative,
double-blind and placebo-controlled dose ranging study.
Anaesthesia. 2004;59:559–64.
- Roehm KD, Piper SN, Maleck WH, Boldt J. Prevention
of propofol-induced injection pain by remifentanil: a
placebo-controlled comparison with lidocaine. Anaes-
thesia. 2003;58:165–70.
- Piper SN, Kumle B, Maleck WH, Suttner SW, Fent MT,
Boldt J. Effects of postoperative sedation with propo-
fol and midazolam on pancreatic function assessed by
- Piper SN, Suttner SW, Schmidt CC, Kumle B, Maleck WH,
Boldt J. Acute phase response to nitroprussideinduced
controlled hypotension in patients undergoing radical

A.3. Anaesthesiologie Intensivmedizin Notfallmedizin
Schmerztherapie

- Triem JG, Röhm KD, Boldt J, Piper SN. Comparison of a
propofol-based anesthesia regimen using optimized-
target-controlled-infusion (OTCI) and manually-controlled
infusion (MCI) technique. Anästhesiologie Intensivmed
Notfallmed Schmerzther. 2006;41:150–5.
- Piper SN, Triem JG, Röhm KD, Maleck WH, Schöllhorn TA,
Boldt J. ProSeal-laryngeal mask versus endotracheal intu-
bation in patients undergoing gynaecologic laparoscopy.
Anästhesiologie Intensivmed Notfallmed Schmerzther. 2004;
- Piper SN, Haisch G, Kumle B, Walz GA, Breining T,
Mattinger P, Boldt J. Effects of esmolol- and sodium
nitroprusside-induced controlled hypotension on hepatocel-
lular integrity in patients undergoing endonasal sinus
surgery. Anästhesiologie Intensivmed Notfallmed Schmerzther.
- Röhm KD, Piper SN, Schöllhorn TA, Suttner SW, Maleck WH,
Boldt J. Injection pain secondary to propofol-MCT/LCT
and propofol-LCT-comparison of prophylaxis with lidoc-
aine. Anästhesiologie Intensivmed Notfallmed Schmerzther.
- Piper SN, Kumle B, Röhm KD, Suttner SW, Lang J, Blome M,
Boldt J. Influence of cardiopulmonary bypass (CPB) on
the natriuretic peptides ANP and BNP. A comparison
between long and short duration of CPB and off pump
surgery. Anästhesiologie Intensivmed Notfallmed Schmerzther.
- Piper SN, Röhm KD, Papsdorf M, Maleck WH, Mattinger P,
Boldt J. Dolasetron reduces pain on injection of propo-
fol. Anästhesiologie Intensivmed Notfallmed Schmerzther.

A.4. Anesthesia & Analgesia

- Riesmeier A, Schellhaass A, Boldt J, Suttner S. Crystalloid/
colloid versus crystalloid intravenous volume adminis-
tration before spinal anesthesia in elderly patients: the
influence on cardiac output and stroke volume. Anesth
- Boldt J, Brosch Ch, Röhm K, Lehmann A, Mengistu A,
Suttner S. Is albumin administration in hypoalbuminemic
elderly cardiac surgery patients of benefit with regard to
inflammation, endothelial activation, and long-term kid-
- Mayer J, Boldt J, Wolf MW, Lang J, Suttner S. Cardiac out-
put derived from arterial pressure waveform analysis in
patients undergoing cardiac surgery: validity of a second
- Mengistu AM, Röhm KD, Boldt J, Mayer J, Suttner SW,
Piper SN. The influence of aprotinin and tranexamic acid
on platelet function and postoperative blood loss in car-
- Boldt J, Wolf M, Mengistu A. A new plasma-adapted
hydroxyethylstarch preparation: in vitro coagulation
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A.5. Anesthesiology


A.7. British Journal of Anaesthesia

A.9. Critical Care Medicine


A.10. Der Anästhesist


A.11. European Journal of Anaesthesiology


- Piper SN, Röhm KD, Boldt J, Faust KL, Maleck WH, Kranke P, Suttner SW. Inspired oxygen fraction of 0.8 compared with 0.4 does not further reduce postoperative nausea and vomiting in dolasetron-treated patients undergoing laparoscopic cholecystectomy. Br J Anaesth. 2006;97:647–53.


A.12. Intensive Care Medicine


A.15. Medical Science Monitor


A.16. Minerva Anestesiologica


A.17. The Thoracic and Cardiovascular Surgeon


A.18. Vox Sanguinis