Cooperations between journals and institutions - The Lancet’s experience

Keeping the Pool Clean
Prevention and Management of Misconduct Related Retractions
July 2016, Fort Collins, Colorado

Sabine Kleinert
Senior Executive Editor, The Lancet
Steering Committee, The World Conferences on Research Integrity
Retractions at The Lancet family 1998-2016 (n=11)
Reasons for retractions at Lancet journals

• Misconduct = 9
  – Fabrication = 4
  – Falsification = 4
  – Duplicate Publication = 1

• Error = 2 (both republished with errors corrected)
Correcting the scientific literature: retraction and republication

This week we publish a comment with the unusual heading “Retraction and republication.....” linked to the China PEACE study. For the first time, we retract a version of a paper that was published online in June last year and republish a corrected version in print together with a supplementary appendix that clearly highlights the discrepancies. We made this decision because the paper needed substantive corrections of its findings. The authors had pointed out this error to us shortly after publication.

Retractions are never easy and journals and editors are still all too often reluctant to take this step. However, it is important to reiterate that the purpose of retractions is the correction of the scientific literature, if the findings as presented are invalid or unreliable. Retraction is not a punishment or tainting of the reputation of one or more authors. When a retraction is due to serious misconduct rather than honest error further appropriate actions against the researchers responsible must be taken by their employers, such as academic institutions or pharmaceutical companies. By contrast, a retraction due to an honest error in the form of a miscalculation or misclassification can be followed by republication of a corrected paper, as in this case.

So where do we draw the line between a correction and a retraction followed by republication? The Committee on Publication Ethics states in its retraction guidelines that “journal editors should consider issuing a correction if a small portion of an otherwise reliable publication proves to be misleading (especially because of an honest error)”. So what should happen if a large portion is misleading? We believe that if many of the numerical findings in the results section change or the interpretation of the work is altered following a miscalculation or misclassification due to an honest error, republication should be considered. The corrected paper should pass peer review and editorial scrutiny once again and when republished the changes should be made transparent. Retraction and republication is a further example of correcting the scientific literature. In our opinion, it should be considered by journal editors in the interests of readers, research users, and the scientific community. ■ The Lancet
Retractions: a new era of transparency and accountability?

Retraction Watch

Botanist pair’s paper retracted, others questioned on PubPeer

with one comment

A plant sciences journal has pulled a 2016 paper for manipulated images after the study came under question at PubPeer.

According to the notice, the authors claim that the images were supplied by a “service provider;” the editor-in-chief of the journal told us he doesn’t have any details on this third party’s identity.

The first author of the retracted paper in Plant Science Today — Dibyendu Talukdar, from the University of Calcutta in West Bengal, India — has several other papers being questioned on PubPeer. His co-author, Tulika Talukdar, who is based at Acharya Prafulla Chandra Roy Government College in West Bengal, India, according to her ResearchGate page, is a co-author on three of these papers. According to the present paper, however, Tulika Talukdar is affiliated with Raja Peary Mohan College, which is part of the University of Calcutta.

Here’s the retraction notice: Read the rest of this entry »
... and a new reason for retractions

The Washington Post

Morning Mix

Major publisher retracts 64 scientific papers in fake peer review outbreak
An example of “informing the journal”

“The retraction of the Kyoto Heart Study in February, 2013 led to an investigation into the conduct of the Jikei Heart Study. An investigating committee headed by Professor Hashimoto from Jikei University was established. We became aware of this development on April 29, 2013, and on May 2 we wrote to Jikei University asking for details of the investigation and requesting that we be kept informed. We wrote again on June 4 and June 19 asking when the investigation might be completed. We wrote again on July 31 after we were made aware that a press conference had been held.”

Retraction—Valsartan in a Japanese population with hypertension and other cardiovascular disease (Jikei Heart Study): a randomised, open-label, blinded endpoint morbidity-mortality study.
Case example: The case of Jon Sudbø

Non-steroidal anti-inflammatory drugs and the risk of oral cancer: a nested case-control study

(Sofia Liu, Xiaowei Jiang, Xue, Yi Yang, Yi Hua, A Adami, A Ziegler, J Imrey, Y. Zhao, J. Gao, M. Shih, F. Bovim, A. Adami, A. Hveem, A. Hveem, A. Hveem, A. Hveem)

Summary

Background: Non-steroidal anti-inflammatory drugs (NSAIDs) were shown to prevent several types of cancer, but could increase the risk of cardiovascular complications. We investigated whether use of NSAIDs was associated with a change in the incidence of oral cancer or overall or cardiovascular mortality.

Methods: We undertook a nested case-control study to analyse data from a population-based database (Cabinet of Norway: CONOR), which covered all prospectively obtained health data from all regions of Norway. People with oral cancer were identified from the 9811 individuals in CONOR who were at increased risk of oral cancer because of heavy smoking (≥ 45 pack-years), and matched controls were selected from the remaining heavy smokers (who did not have cancer).

Results: We identified and analysed 454 people with oral cancer (579 men, 373 women; mean [95% CI] age at diagnosis 68.0 [66.8-69.8] years; and 448 matched controls [962] 462 [95% CI] 68.0 [66.8-69.8] years). 93% (95% CI 92.5-93.5) had used NSAIDs (386 [95% CI 92.5-93.5]), and 462 (95% CI 92.5-93.5) had not. NSAID use was associated with a reduced risk of oral cancer (hazard ratio [HR] oral cancer = 0.47, 95% CI 0.37-0.60) and increased CV death (HR CV death = 2.06, 95% CI 1.34-3.18).

Conclusions: Use of NSAIDs was associated with a reduced risk of oral cancer, and increased CV death. Use of NSAIDs was associated with a reduced risk of oral cancer, and increased CV death. These findings highlight the need for a careful risk-benefit analysis when the long-term use of NSAIDs is considered.

Introduction

Squamous cell carcinoma of the oral cavity is associated with severe disease-related and treatment-related morbidity and a poor prognosis that has not improved greatly over the past three decades. Tobacco smoking is the major cause of this disease. Patients who have oral leukoplastic lesions with the potential to develop oral cancer have an 8% risk of developing oral cancer within 10 years, and a 30% risk of death in 5 years. Complete surgical excision does not reduce the high risk of aggressive, lethal oral cancer associated with uncontrolled oral leukoplakia. Smokin cessation could offer some protection in this setting. It is often difficult to achieve or maintain.

Therefore, there is an urgent medical need for new treatment strategies, such as chemoprevention with non-steroidal anti-inflammatory drugs (NSAIDs). These drugs reduce the risk of cancer in patients with precancerous oral leukoplakia.

NSAIDs inhibit cyclooxygenase (COX) activity and thereby suppress the production of prostaglandin E2 (PGE2). Raised concentrations of prostaglandin E2 have been detected in both premalignant and malignant lesions, including squamous-cell carcinoma of the oral cavity. This increase results from the overexpression of COX-2, the inducible form of COX. Several lines of evidence suggest that COX-2 overexpression contributes to the development of oral cancer. COX can convert polyunsaturated arachidonic acids in tissues to eicosanoids, which form multiple DNA adducts. Prostaglandin E2 can stimulate cell proliferation and angiogenesis and inhibit apoptosis and increase vascular permeability. NSAIDs prevent against the development of oral cancer in animals. Observational data have indicated that NSAIDs are associated with the reduced risk of several types of cancer. But we know of only two previously published reports of epidemiological studies of NSAIDs with respect to head and neck cancer. These reports only included aspirin and showed conflicting results. Before undertaking a trial to investigate NSAIDs in reducing the risk of oral cancer in the very high-risk group of patients with premalignant leukoplakia, we did a population-based study to evaluate the potential association between long-term NSAID use and the risk of oral cancer and previously unknown factors. We also assessed the potential association of overall and cardiovascular mortality with NSAID use.

Methods

Risk identification in population-based health survey database

We did a nested case-control study within the population-based Cabinet of Norway (CONOR), which prospectively obtains data for the Norwegian Health Survey from three longitudinal health surveys covering all geographical regions of Norway (Kalix). Surveys of

- Nested case-control study
- 454 cases (oral cancer): 454 controls
- NSAID use: Hazard ratio oral cancer = 0.47 (95% CI 0.37-0.60)
- NSAID use: Hazard ratio CV death = 2.06 (95% CI 1.34-3.18)
What happened?

Submitted
Sept 6, 2005

Peer review

Revisions

Acceptance

Publication online
Oct 7, 2005

Non-steroidal anti-inflammatory drugs and the risk of oral cancer: a nested case-control study

Johns [1] and associates (JAMA 2002;289:2410-7) have recently published their prospective study examining the relationship between non-steroidal anti-inflammatory drug (NSAID) use and the risk of oral cancer.

The authors conducted a nested case-control study within the cohort of the Norwegian Cancer Registry. They identified cases with oral cancer and controls without oral cancer, both matched for age, sex, and county of residence. The cases were selected from the Norwegian Cancer Registry, while the controls were selected from the Norwegian Population Registry. The study included 273 cases and 546 controls.

The results of the study showed that the use of NSAIDs was associated with a reduced risk of oral cancer. The risk of oral cancer was significantly lower in those who used NSAIDs than in those who did not. The authors also found that the risk of oral cancer was lower in those who used NSAIDs for longer periods of time.

The authors conclude that their findings support the hypothesis that NSAIDs may have a protective effect against oral cancer. They suggest that further research is needed to confirm these findings and to understand the mechanisms by which NSAIDs may reduce the risk of oral cancer.

References:


• January 13, 2006: the story broke

• We were alerted to it by journalists
• Is *The Lancet* more interested in great headlines than correct science?

• How often are you being warned about flawed research?

• Why didn’t you listen to your peer reviewers?
Dear Dr. Horton,

On behalf of the commission appointed by the University of Oslo and Rikshospitalet to investigate possible scientific misconduct by Dr. Jon Sudbo, I have the sad duty to inform you that the commission has concluded that the paper "Sudbo J, Lee JJ, Lippman SM, Mork J, Sagen S, Flatner N, Rastamaki A, Sudbo A. Non-steroidal anti-inflammatory drugs and the risk of oral cancer: a nested case-control study. Lancet. 2005 Oct 15;366(9494):1359-66" contains fabricated data and should in our opinion be retracted.

Yours sincerely,

Anders Ekbom
Professor of Clinical Epidemiology

Expression of concern: January 21, 2006

Retraction: February 4, 2006
16/38 papers to be retracted in 11 journals

Oral Oncol 3
N Engl J Med 2
Int J Cancer 2
Clin Oncol 2

1 each in
Clin Med Res, J Oral Pathol Med, J Pathol,
Lakartidningen,
Lancet, Oncology, Tidsskr Nor Laegeforen
“xxx Hospital are reviewing concerns about the integrity of certain data…. and included in the following published paper…..While the institutional review of the veracity of the data in this paper is ongoing….. we have determined…. that a retraction is warranted.”

“Because review of this paper is ongoing, we cannot provide additional details at this time”
Correlation between impact factor and retraction index.

Fabrication/falsification – the journal’s perspective

• Maybe difficult to detect before publication
• ‘red flags’ at peer review stage
• In basic science journals often found by detection of image manipulation
• Journals rely on institutions to investigate
What are red flags?

- Reviewers very critical, say ‘data too good to be true’
- Single author research papers
- Reluctance to engage at revision
- Undeclared conflicts of interests
- Effect size implausibly large
- Data too homogenous (CIs, SDs, group sizes…)
- Certain fields (stem cells) with exaggerated claims?
Fabrication/falsification

Important things for editors to remember

• Confidentiality of material
• Confidentiality of reviewer/whistleblower (ie reader if published paper) identity
• Paraphrase issues or ask whether identity can be disclosed (rarely necessary)
• We can’t (and it’s not our role) to assess ‘raw’ research data (research records, spread sheets…etc)
• We have a duty even if not interested in paper (we can reject paper and still instigate investigation)
• We must act as a matter of urgency if paper published
Summary

Journal editors should consider retracting a publication if:

- they have clear evidence that the findings are unreliable, either as a result of misconduct (e.g. data fabrication) or honest error (e.g. miscalculation or experimental error)
- the findings have previously been published elsewhere without proper crossreferencing, permission or justification (i.e. cases of redundant publication)
- it constitutes plagiarism
- it reports unethical research

Journal editors should consider issuing an expression of concern if:

- they receive inconclusive evidence of research or publication misconduct by the authors
Retractions: when (The COPE guidelines)

Journal editors should consider retractions

- Evidence that findings unreliable (misconduct or honest error)
- Findings have been previously published (duplicate/redundant) without permission and/or cross-referencing
- Plagiarism
- Unethical research
Journal editors should consider **expression of concern**

- Inconclusive evidence of misconduct
- Findings unreliable but no investigation by institution
- Investigation has not been or would not be fair and impartial or conclusive
- Investigation underway but will take long time (and it is important to alert readers)
Retraction notes should:

- Be linked to the retracted article
- Clearly identify retracted article
- Be clearly identified as retraction
- Be published as soon as possible
- Freely available and accessible
- State who is retracting
- State reasons
- Avoid statements that are potentially defamatory or libellous (cite investigation’s findings, show legal counsel if unsure)
Retractions: common misunderstandings

- always indicates misconduct
- = punishment of authors
- has to be agreed by all authors
- retractions = ‘taking down’ articles
- ? expose the journal/editors to legal actions/libel
- thorough peer review can prevent misconduct

Retractions: safeguarding the scientific record
Who should retract?

• Ideally all authors should agree
• If not all, state who does and who doesn’t and why
• If authors don’t agree, editors should retract (responsibility for journal’s content!)
Authors who dissociate themselves from publication

Authorship = joint responsibility!

Legal threats

Instructions for authors detail processes that might lead to retraction

Due and diligent processes

Legal advice for wording

If authors consent to wording = defence against libel
Outstanding (research) questions

Are increased retractions due to:
- increased awareness
- editors following guidelines
- more pressure to publish
- or a combination of all

Are ‘predatory’ open access journals increasing misconduct?

Is a more competitive research environment leading to misconduct?

Are certain areas more prone to misconduct? (stem cell research, anaesthesia, psychology….)
Cooperation between research institutions and journals on research integrity cases: guidance from the Committee on Publication Ethics (COPE)

Summary

Institutions and journals both have important duties relating to research and publication misconduct. Institutions are responsible for the conduct of their researchers and for encouraging a healthy research environment. Journals are responsible for the conduct of their editors, for safeguarding the research record, and for ensuring the reliability of everything they publish. It is therefore important for institutions and journals to communicate and collaborate effectively on cases relating to research integrity. To achieve this, we make the following recommendations.

Institutions should:

• have a research integrity officer (or office) and publish their contact details prominently;

• inform journals about cases of proven misconduct that affect the reliability or attribution of work that they have published;

• respond to journals if they request information about issues, such as disputed authorship, misleading reporting, competing interests, or other factors, including honest errors, that could affect
3rd World Conference on Research Integrity
Montreal, May 5-8, 2013

>360 participants from 46 countries
>200 presentations

4 Focus Tracks

- International collaborations (‘Montreal statement’)
- Collaboration between Journals and institutions in suspected misconduct cases
- Responsible Conduct of Research instruction
- Societal implications
Chapter 22

Cooperation between Journals, Research Institutions and Funders over Research and Publication Integrity Cases: Defining the Challenges

Elizabeth Wager
Sideview, Princes Risborough, UK and
Sabine Kleinert
The Lancet
CLUE workshop:
Heidelberg, July 11-13, 2016

CLUE = Collaboration and Liaison between Universities and Editors
CLUE workshop participants

- From: UK, USA, South Africa, Germany, Croatia, Australia, Netherlands

Dean, Vice-Chancellor, Research Integrity Officers, Editors, Publishers, Funder, Lawyer, Director at ORI, Director of Research Integrity.
CLUE: next steps

- Discussion paper with ‘Best Practice’ recommendations – both high level and practical
- Answers to questions in Chapter 22
- Acknowledgement of current barriers
- Wider consultation
- Presentation and discussion at 5th WCRI Conference in Amsterdam