Authorship trends in the Indian Journal of Pathology and Microbiology: going the global way?

Guidelines for authorship of biomedical journals have been available for nearly two decades now to help determine how attribution should be acknowledged. With an increasing number of multiauthored articles and with contributions from diverse specialties, authorship disputes will always raise their head because existing guidelines may not be followed stringently or may be misinterpreted. I analysed author numbers in the Indian Journal of Pathology and Microbiology over the past 28 years (1975–2002). The designation of various authors or their individual contributions to the authored papers was not ascertained. In total, 1861 articles comprising 1268 (68.1%) original articles and 593 (31.9%) case reports were studied.

The number of authors for original articles ranged from one to a maximum of 10 (mean, 3.4). The mean number of authors for each article showed a significant increase from 1.9 (SD, 1.4) in 1975 to 3.9 (SD, 1.2) in 2002. The proportion of original articles with five or more authors also showed a sharp rise from 5% in 1975 to more than one fourth (26.1%) of all articles in 2002.

The number of authors for 593 published case reports ranged from one to a maximum of eight (mean, 3.5). The mean number of authors for each article showed a significant increase from 2.6 (SD, 1.5) in 1975 to 4.2 (SD, 1.3) in 2002. The proportion of case reports with single authors declined from 40% in 1975 to none in 2002. Original articles with five or more authors also showed a sharp rise from 5% in 1975 to more than one fourth (26.1%) of all articles in 2002.

The authorship also erodes the pillars of ethical attribution. All these practices violate the Vancouver guidelines and cause much anguish to those forced to include non-contributors as co-authors in their work or those who are denied attribution when it is deserved. Authors must accept responsibility for a publication when taking the credit for the same. Institutions also need to address authorship issues head on, and devise ways to deal with such disputes. This vital activity in the biomedical field should not be converted into a power game where only the mighty win.

N Kakkar
Department of Pathology, Christian Medical College and Hospital, Ludhiana 141 008, Punjab, India; n_kakkar@satyam.net.in

References
4 Shapiro DW, Wengen NS, Shapiro MF. The contribution of authors to multiauthored biomedical research papers. JAMA 1994;271:438–42.

Type A intracytoplasmic inclusions in human cowpox infection

Replication of poxviruses results in the development of intracytoplasmic inclusions that may be visible by light microscopy. Kato et al (1999) classified these according to their morphology, staining properties, and rate of accumulation. Type B inclusions are basophilic and occur early in the viral replication cycle. They represent the actual site of viral replication in the cytoplasm and may be seen in all productive poxvirus infections. In contrast, type A inclusions are large, well defined, eosinophilic bodies that develop late in the viral replication cycle. They are composed entirely of a single protein species that has a molecular weight of 160 kDa, but their function is not understood. Type A inclusions are only associated with certain poxvirus infections so that their detection may be diagnostically useful.

We recently reported the clinical presentation of a veterinary surgeon working at a small animal practice who developed a black necrotic ulcer on his finger. Histopathology of a punch biopsy of the lesion unexpectedly revealed epidermal hyperplasia, neutrophil infiltration, and the presence of numerous large eosinophilic intracytoplasmic inclusions, consistent with poxvirus infection (fig 1). Based on this appearance, the differential diagnosis included cowpox (an orthopoxvirus infection), orf, and pseudocowpox (both parapoxvirus infections). In the context of frequent occupational exposure to cat scratches but no contact with ungulates, cowpox was the most probable diagnosis. This diagnosis was confirmed by polymerase chain reaction and partial DNA sequencing. Human cowpox is an uncommon and probably underdiagnosed infection that occurs only in Europe. Despite the name, cowpox is rare in cattle. Human infections are probably most frequently acquired from infected cats shedding virus from skin lesions, which gain entry to the human skin through abrasions or scratches.

Laboratory diagnosis of cowpox may be established by electron microscopy of vesicle fluid, by polymerase chain reaction, virus isolation, or serology. However, in our case the histopathological appearances were important in establishing a probable diagnosis of human cowpox before molecular virological confirmation at a reference laboratory. Cowpox virus is recognised as causing large intracytoplasmic inclusion bodies in infected feline tissues and in vitro cell culture. However, such inclusions were not among the biopsied cases included in an extensive review of this disease, in which a total of 54 published and unpublished human cases were reviewed.

Indeed, an extensive search of the literature found no previous reports of such inclusions being seen in biopsied human cowpox lesions. Histopathologists should be aware that such a histological appearance in an unusual vesicular, papular, or ulcerated skin lesion obtained from a patient with a history of contact with domestic cats probably results from cowpox infection.

S D Lawn
Department of Cellular and Molecular Medicine: Infectious Diseases, St George’s Hospital Medical School, London SW17 0RE, UK; stevelawn@yahoo.co.uk

S Halwill
Department of Histopathology, St George’s Hospital Medical School

References
A previously healthy 21 year old man presented with a two day history of worsening right lower quadrant abdominal pain. On examination he was found to have a fever and right lower quadrant abdominal pain. We decided to extend the original Lantz incision transversely to improve access. A mobile mass was discovered in the right upper abdomen. The mass was freed from the greater omentum. It was loosely adherent to the bowel, mainly the distal ileum and colon. Histological examination using haematoxylin and eosin staining confirmed that the mass was an actinomycotic lesion.

Incidental freezing artefacts in sentinel lymph node biopsies masquerading as lymphangiography artefacts

Sentinel lymph node (SLN) biopsy is widely used staging procedure. As recently reviewed, possible problems with microscopic interpretation include false positive immunohistochemical staining and benign lesions mimicking metastasis. To our knowledge, no histological artefacts, especially no lymphangiography artefacts, have been attributed to this procedure. I recently encountered an artefact that at first glance seemed to be a lymphangiography artefact.

Necrotic SLN biopsies were stored in the refrigerator and the refrigerator was switched off. Since the artefact had never been seen before, it was interpreted as a possible lymphangiography artefact. However, the artefact has disappeared after reorganisation of the operating theatre in December 2002, but before that date it had not been noticed that the SLN specimens had empty holes with no reactive changes (fig 1). The artefact was noted in the tumour of one of the lymphangiography artefacts, but long courses are recommended.

The departments of surgery and nuclear medicine were contacted and one of the nurses from the operating theatre mentioned that the SLN specimens were stored in a refrigerator during transport. This refrigerator had been switched on after reorganisation of the operating theatre in December 2002, but before that date it had been switched off. On several occasions she had noticed that tissues stored in the refrigerator were frozen and for this reason the refrigerator had been serviced twice, although no improvement was seen. This problem had not been reported to our laboratory and we had never noticed that the SLN specimens were frozen on arrival. We concluded that the artefacts in the SLNs were freezing artefacts and the artefacts were switched off. Since then the artefact has disappeared.

Reference


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Can routine laboratory data guide empirical prescribing?

Smellie and colleagues have noted large and significant differences in rates of submission of samples for microbiological testing between practices in the south west and north east regions. They think that these data indicate that some sentinel practices are more selective in the use of the laboratory and speculate that routine laboratory generated antibiotic surveillance data will thus tend to include more complicated cases and overestimate antibiotic resistance. The authors therefore question the validity of using routine laboratory data on antibiotic resistance for primary care based therapeutic guidelines for empirical prescribing, and recommend an enhanced surveillance programme with a standardised approach to informing such guidelines. We have recently completed such a programme for urinary tract infection (UTI) and can therefore comment on these suggestions.

The susceptibility data for uropathogens recovered from routine urine samples received from the 80 practices served by Cambridge Microbiology and Public Health Laboratory were compared with the results from a sentinel group of five practices in the same locality, which agreed to submit urine samples on all patients presenting with a clinical diagnosis of UTI within a three month period during 2002. In total, 967 urine samples were received from the sentinel practice group and 18 892 from the general practice group. Bacteria were recovered from 269 and 4449 samples from the two groups, respectively. Overall, 89% were Gram negative bacilli and the numbers of these were large enough to permit meaningful comparison and statistical evaluation. There were no significant differences in rates of recovery of any organism between the two groups, indicating that, in contrast to the assertion of Smellie et al, any bias by general practitioners to send in samples with complicated infections involving more resistant organisms, such as Pseudomonas spp, did not result in overestimating the extent of antibiotic resistance in our population.

Resistance rates to cefalexin, norfloxacin, and gentamicin were marginally lower (2.5% v 5.0%, 2.0% v 4.4%, and 0.8% v 1.3%, respectively) and resistance to ampicillin, trimethoprim, and co-amoxiclav was slightly higher (46.0% v 45.1%, 22.8% v 19.8%, 18.1% v 11.7%, respectively) in the sentinel practice group than in the general practice group. However, only the resistance rate for co-amoxiclav was significantly different (p = 0.03 by two tailed t test).

Two other studies of enhanced surveillance programmes have been published, also investigating UTI. Baerheim et al reported a study on female patients with UTI in general practice in Norway, comparing resistance rates for bacteria recovered from unselected (sentinel) patients with those from those women who were sent routinely, using a panel of six antibiotics.1 Uropathogens from the sentinel group were 3.4–8.4% less resistant to the antibiotics tested, but the results were significant only for nitrofurantoin (3.0% resistant in sentinel patients compared with 9.7% resistant in routine patients). Richards reported a study similar to our own over a 12 month period involving three sentinel general practices in Norfolk, UK.2 Sentinel practice resistance rates were the same, or very slightly higher for co-amoxiclav, ciprofloxacin, cefadroxil, and gentamicin and slightly lower for ampicillin, cefuroxime, and trimethoprim. The difference was largest with trimethoprim (18% resistant in sentinel practice patients versus 22% resistant in all other practices), and only this difference achieved significance. We did not duplicate their findings; indeed, the pattern for lesser or greater resistance in the sentinel practice group versus all general practice was reversed in our study.

There is no consistency in antibiotic showing greater or lesser resistance rates in sentinel practice patients in these studies. However, a common feature of all three is that the differences in resistance rates for sentinel practices compared with overall reported resistance rates are small, and none would justify a change in recommendations for empirical prescribing for UTI in general practice. We conclude that there is good evidence that susceptibility data derived from routine urine samples received by the laboratory provide reliable information for formulating empirical prescribing guidelines for urinary tract infections in domiciliary practice. We suspect that this also applies to specimens from other sites, but this requires further study.

H Ludlam Health Protection Agency, Cambridge Microbiology and Public Health Laboratory, Addenbrooke's Hospital, Cambridge CB2 2QW, UK; hugo.ludlam@addenbrookes.nhs.uk

References


BOOK REVIEW

Surgical pathology dissection. An illustrated guide, 2nd edn


Because I am particularly obsessed with standardisation of the grossing of specimens, reviewing a book devoted entirely to this extremely important aspect of surgical pathology was something I did with relish. As is set out in the foreword, the grossing guidelines contained in the book conform, in the main, with the recommendations of the College of Pathologists and the Association of Directors of Anatomic and Surgical Pathology, although the contributors are from one institution.

The style of the book is very simple and the reader is “talked” through the dissection. There are line drawings of the specimens and where sections of the specimen should be taken from. Although in black and white, this does not detract from the essence of the book. As such, it is an excellent instruction manual that should form the basis of every cut up manual anywhere in the world. Although there are regional variations and personal quirks, there is only one way to gross a specimen properly and that is the right way. This book will point anyone who is at the cut up bench in the right direction.

I thoroughly recommend this book to all registrars, pathologists, and pathologist’s assistants.

R Chetty

ACAL OF EVENTS

Practical Pulmonary Pathology

27–30 July, 2004, Brompton Hospital, London, UK

Further details: Professor B Corrin, Brompton Hospital, London SW3 6NP, UK. (Tel: +44 (0)20 7351 8420; Fax: +44 (0) 20 7351 8293; Email: b.corrin@ic.ac.uk)

ACP Management Course for Pathologists, 2004

8–10 September 2004, Hardwick Hall Hotel, Sedgefield, County Durham, UK

Further details: V Wood, ACP Central Office, 189 Dyke Road, Hove, East Sussex BN3 1TL, UK. (Tel: +44 (0) 1273 775700; Fax: +44 (0) 1273 773303; Email: valerie@pathologists.org.uk)

Asian Pacific Association for study of the Liver Biennial Conference

11–15 December 2004, New Delhi, India

Further details: Dr V Malhotra (General Secretary) or Dr P Sakhija (Treasurer and Pathology Coordinator), Room 325, Academic Block, Department of Pathology, GB Pant Hospital, New Delhi 110002, India. (Tel: +91 11 2327455; Email: welcome@apaslindia2004.com; Website: www.apaslindia2004.com)

CORRECTION


The third author’s name was incorrectly spelt: it should have been M O O Donnell. In addition, this author would like it to be known that she did not see the proofs before the paper was published.