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Carbon monoxide poisoning and risk for venous thromboembolism

As specialists in carbon monoxide (CO) poisoning, we noted with interest the paper in Journal of Epidemiology and Community Health this year by Kao and colleagues examining the diagnosis of other diseases following an episode of CO poisoning.¹ It described a retrospective, population-based, cohort study utilising the Taiwanese National Health Insurance Database. In essence, patients experiencing CO poisoning during a 13-year period were identified, matched to controls, and the database searched for subsequent new diagnoses that occurred in the CO-poisoned population in excess to those seen in the cohort. The paper reported an increased risk for thromboembolic disease following CO poisoning.

We subsequently identified four more CO publications from Kao's group in other journals published in 2015, using the same research model and database.²⁻ One reported increased risk of cardiac arrhythmias following CO poisoning, one Parkinson disease, one peripheral artery disease, and one ischaemic stroke. All of the papers had similar formatting.

It seemed unusual that one would query the same database in the same way, find five conditions associated with CO poisoning and report them in five individual manuscripts. We expected that the findings would be combined in one paper.

The senior author, Dr Chia-Hung Kao, is the same on all papers but the primary authors are different, coming from institutional departments as diverse as health services administration, emergency medicine, hematology/oncology, and internal medicine.

A PubMed search performed on 31 December 2015 revealed that Dr Kau published at least 151 papers in 2015 from the same database analysis, each describing the association of two different conditions. Examples of the associations include gallbladder polyp/stroke, irritable bowel syndysfunction, drome/erectile neonatal urinary tract infection/childhood allergic rhinitis, COPD/dementia, and allergic rhinitis/intracranial haemorrhage. Kao served as senior author to 60 different primary authors in 2015, each of whom published from 1 to 12 papers. The primary author's departmental affiliation was often unrelated to the organ system discussed.

This research appears to be templated and not hypothesis driven. It seems unhelpful to the clinician trying to read the literature to have an investigator publish 150 manuscripts from one study model, each describing two conditions that were associated in an insurance database, often with no apparent connection. Across all of these CO association papers noted, we are wary of the data supporting these specific conclusions.

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