



GENERAL ACUPUNCTURE

## Thoughts on Ernst's Review of Reviews

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Curious, I read the *Pain*® journal article by Edzard Ernst and colleagues entitled "*Acupuncture: Does it alleviate pain and are there serious risks? A review of reviews*"<sup>1</sup>. In the piece, it states in many of the acupuncture case reports "causality was uncertain...not least because of a lack of sufficient detail. Yet, most of the authors seemed confident about causality."

Yet, the piece concluded that, "Although acupuncture is commonly used for pain control, doubts about its effectiveness and safety remain." Further, "Acupuncture remains associated with serious adverse effects. One might argue that, in view of the popularity of acupuncture, the number of serious adverse effects is minute. We would counter, however, that even one avoidable adverse event is one too many."

The reviewed data was collected internationally and represents 10 years of studies, identifying only 38 cases of infection, 42 traumas, 13 adverse effects and five deaths claimed to be related to acupuncture. Ernst and his colleagues listed 165 references. 32 seemed to be systematic reviews. Most are anecdotal case reports of complications. There were 17 negative reviews between 1989-2000 and 57 positive later reviews.

I would like to explore concerns about the scientific nature of this piece. It seemed to have missed important literature demonstrating the safety of acupuncture. Further, the methods lack sufficient power to provide validity for the conclusions made.

### Safety in Medicine

First of all, the piece did not examine iatrogenic deaths due to conventional drugs, chemotherapy, radiotherapy and surgery. It was more focused on the safety and efficacy of acupuncture. Ernst is currently the chair of Complimentary and Alternative Medicine at Exeter, so while it would be interesting to see results an in-depth "review of reviews" on the safety and efficacy of conventional medicine and surgery, that is not likely the scope and mission of the department.

Consider the 41,000 ulcers and 3,300 deaths caused by non-steroidal anti-inflammatory drugs in one year<sup>2</sup>. Also, the 16,000 injuries from auto crashes each year connected with psychoactive drugs such as benzodiazepines and tricyclic antidepressants<sup>3</sup>. The magnitude of drug related deaths internationally over a 10-year period, while not their topic, would provide context. These points are not tu quoque - erroneous logic, based upon the argument that: "If you did it, so can I." Rather, I concur that avoidable injuries and death are unacceptable.

To his credit Ernst recommends: "The key to making progress would be to train all acupuncturists to a high level of competency." He also called it malpractice rather than any real risk of acupuncture. I couldn't agree more. Abbreviated acupuncture programs pose a risk to the patient and to society.

Phil Rogers, an acupuncture researcher and veterinarian in Ireland, reached a similar conclusion 30 years earlier. Rogers noted "It is shown that serious complications can arise only from the improper use of acupuncture or from its gross abuse by incompetent practitioners. The safety of a technique must be judged on its results in the hands of competent practitioners who use it properly. If this criterion is accepted, acupuncture is seen as an extremely safe therapeutic system whose complications are very rare and are easily avoided or rectified"<sup>4</sup>.

## The Science

Ernst and his colleagues do not reference previous studies showing acupuncture as safe. Take for instance, the 2003 article by Brian Berman and Lixing Lao entitled, "*Is Acupuncture Safe? A Systematic Review of Case Reports*"<sup>5</sup>. That article clearly demonstrates that acupuncture is a safe practice. Further, Ernst and his colleagues do not identify other complications such as fainting, vomiting or bruising, which are the more common side effects seen with this intervention. More importantly, the number of adverse events per treatment is not stated. In order to assess risk, one must know the number of times acupuncture was performed during the studies. The piece does not provide the number of patients, treatments, or needles inserted. Without that, no conclusion can be drawn on safety.

The methods section is weak and lacking in detail. For data on efficacy, it doesn't provide information about how the studies were controlled. Was it acupuncture alone, skin penetrating, non-penetrating or adjacent to the point location? I didn't see any of that. It leaves the reader wanting to know more about the studies that were used.

In systematic reviews, there is also a danger of pulling information without getting the context of the meaning. These authors seem to pull sentences, describing study findings, out of the larger context of the reviews. Further, lack of detail as to how Ernst and his colleagues quantified the quality of the studies brings into question the validity of their conclusion.

The field has standards such as STRICTA (Standards for Reporting Interventions in Controlled Trials of Acupuncture)<sup>6</sup>. Further, a new tool has been developed by Hammerschlag and others that assesses reporting quality and combines STRICTA and CONSORT (Consolidated Standards of Reporting Trials)<sup>7</sup>. Ernst and his colleagues have cast the net wide and have included an impressive number of citations. It would be useful to have them more focused in terms of time frames and qualifications. The CONSORT and STRICTA tools would make a difference for a paper such as this. That difference, however, may be too few studies to fill the review.

In Closing

It appears that the piece does not provide a secure theoretical or evidential basis for the argument, and has used analytical tools inadequate to achieve objective and reliable conclusions. In their attempt to link acupuncture to adverse events, Ernst and his colleagues have included unverified data ("most of the authors seemed confident about causality").

"*Acupuncture: Does it alleviate pain and are there serious risks? A review of reviews*" leads me to ask - are the conclusions valid? There remains serious questions, given the inconsistencies in the document. We must ask the question, what is the objective for Pain® and its editors with respect to publishing this paper? They are regarded as a prestigious and impartial journal, yet the authors seem to have not met the standards of quality that the journal represents.

### References

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