Reviewer's report

Title: In-vivo visualisation of the anatomical structures related to the acupuncture points Dai mai and Shen mai by MRI. A single-case pilot study.

Version: 3 Date: 15 August 2006

Reviewer: P J White

Reviewer's report:

Abstract
The phrase in-vivo imaging with adequate material was carried out does not make sense. Some grammatical errors
Banana as a substrate is incorrect. The banana was used as a substitute
Poor grammar in the conclusion, clumsy wording

Background
The first 7 lines are of no relevance whatsoever to the study in question. Reviewer 1 has asked for more background information, this revised version does not contain this. The author responds by suggesting that there is little information on the anatomical nature of acupuncture points. This is true but there is some e.g. Kovacs 1992, Lazorthes 1990, Salzberg et al 1995, Chan 1984, Bensoussan 1994, Melzack 1981, Dung 1984, Ciszek et al 1985, Bossy 1984, Bong Han 1964 etc.
The second paragraph of the intro (aim) mentions TCM, this is completely irrelevant to this study. The aim is: to test the feasibility of ascertaining the anatomical correlates of acupuncture points using MRI.

In short, the background is completely inadequate and should be rewritten.

Methods
Reviewer 1 has also asked for more information such as ethics, the revision does not contain this. I would add that that format of the study needs to be explained fully so that the study could be replicated if needed. i.e. what needle was inserted first, how long was it in, at what point did the subject enter the scanner etc.
More importantly, how sure were the authors that the needle was inserted into the acupuncture point. Was this validated by anybody, was deqi obtained what experience did the practitioner have in this field (how many years experience/ training).

Is this paper a description of two separate studies (page 4)? If so it should be described as such.
The needles were placed in a closed glass container not a closed glass.
Page 5 describes a neutral needling technique, I have never heard this phrase used before in 12 years of acupuncture practice and 10 years of research. Perhaps it could be explained.

Results
Figures 4, 5 and 6 do not state which types of needle they are showing
How did the scan images of the steel needles differ from the gold? This should be explained.

Discussion
This study is designed to centre around feasibility, hence the point on page 8 regarding connective tissue contraction is irrelevant, particularly as this study used only 2 acupuncture points, it is rather too early to claim that there is a tie in with connective tissue contraction. The last paragraph of the discussion is also irrelevant to this study and should be deleted. Reviewer 2 asked for this to be deleted but the authors have not done so.
It would be much more valuable to discuss the merits of steel versus gold needles, how much the movement of the steel needles might become a problem, are they likely to be pulled out by the field, how can the artefacts around the needles be minimised, why are they there etc.

Conclusion
Given that there is lack of definition around the image of the needle, is the conclusion given valid?