The IFT (isolated forearm technique) and consciousness

Editor—Zand and colleagues\(^1\) state that, ‘Movement of the hand in response to a recorded command’ is the basis of the IFT. This is only partly correct. The IFT relies on the accurate identification of hand responses and, in the original work by Tunstall,\(^2\) that involves speaking directly to the patient and ‘interacting’ with the patient. Studies of the IFT using pre-recorded commands for convenience must verify what hand movements actually represent.\(^3\) Zand and colleagues\(^1\) do draw attention to major deviations from a correct IFT protocol: the patient’s name was not used in the command, the hand was only observed for movement at predefined points, the tourniquet was not always placed on the dominant arm, no peripheral nerve stimulator was used to ensure that neuromuscular integrity was maintained under the tourniquet. While we accept that most of these faults in technique would tend to underestimate patient responses, the most significant error in their methodology was that they could not hear the command and simply observed hand movements with no attempt at verification. Thus they do not know if the hand movement was a reflex or if it was a true response to the command. From our years of experience with the IFT technique it is quite clear that if patients are spoken to directly in association with type 1 (‘non specific’) hand movements some will respond appropriately. Conversely, when patients are spoken to in association with type 2 (clenching/flexing) movements there may be no verified response. Without verification of the observed hand movements Zand and colleagues\(^1\) do not know what the patients’ state of consciousness was, and so the data are unreliable.

In the accompanying editorial Sanders and colleagues\(^4\) introduce the term ‘connected consciousness’ and explain why this ‘new state’ of consciousness is required. However, their argument for this conscious state appears flawed on several counts. The authors seem to believe that during an IFT response the subject does not appear overtly wakeful, i.e. the eyes are not open. The simple answer for this is the fact that most of these patients are paralysed apart from their hand. If the patient is not totally paralysed the patients may indeed open their eyes and look around (sometimes in alarm) in association with a positive hand response to command. The authors also seem to believe that there is a difference between ‘wakefulness’\(^2\) and the state of consciousness during an IFT response: these are identical states. They base the suggested difference between the conscious states on a lack of spontaneous patient movement with the IFT. Again, paralysis prevents most patient movement, but many patients do move their isolated hand spontaneously during anaesthesia, and this is why hand movements must be verified by direct questions. If total paralysis is not present then leg or head and/or purposeful hand/arm movements are seen frequently.\(^2\)\(^5\)\(^6\) Whether a state of ‘connected consciousness’ exists cannot be based on the above argument.

Declaration of interest

None declared.

I. F. Russell\(^1\)*
M. Wang\(^2\)
\(^*\)Leicester, UK
\(^1\)Hull, UK

*E-mail: ifr@russell3.karoo.co.uk

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