Future of robotic anaesthesia

Editor—I enjoyed reading the study by Hemmerling and colleagues.\textsuperscript{1} A robotic technique would fill a gadget loving, coffee drinking anaesthetist with enthusiasm, but I would like to understand the fundamental point of what are we trying to achieve by using this technique of tracheal intubation. I wonder whether the development of this technique is driven by increasing patient safety, or reducing airway complications, challenging the time from induction of anaesthesia to start of surgery, and decreasing morbidity and mortality. I believe that this line of research does not carry much importance without a clinically important hypothesis. I do appreciate the effort involved in this project; it is an interesting academic article, and that is where it stands, without any hypothesized clinical use in the future.

Declaration of interest

None declared.

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doi:10.1093/bja/aes288

Reply from the authors

Editor—We thank Dr Kanagarathnam for his questions related to our study.\textsuperscript{1} Indeed, I am reminded of a similar response many years ago when the DaVinci robotic system was presented: what for, will it replace doctors, and what is its benefit? We presented a new concept of robot-assisted tracheal intubation in a pilot study. Where do we go from here? Many more technical developments will be required which will focus on exactly the questions raised: can this lead to reduced morbidity or reduced workload for the anaesthetist? Can it lead to higher precision of human gestures or can it even lead to a replacement of human gestures as anesthetist? Can it lead to higher precision of human gestures, lead to reduced morbidity or reduced workload for the anesthetist? Which will focus on exactly the questions raised: can this lead to reduced morbidity or reduced workload for the anesthetist? I believe that this line of research does not carry much importance without a clinically important hypothesis. I do appreciate the effort involved in this project; it is an interesting academic article, and that is where it stands, without any hypothesized clinical use in the future.

Hallucinations associated with cerebrospinal fluid leakage after a lumbar puncture

Editor—we read with interest the article by Loures and colleagues describing a patient who developed a psychiatric-like illness after cerebrospinal fluid (CSF) leakage after a dural puncture.\textsuperscript{1} We experienced a similar case with a 10-yr-old boy who was suspected of having mitochondria disease and underwent a lumbar puncture as a part of his work-up. Just after the procedure, he developed a headache, and CSF leakage was confirmed. After the leakage was treated, he had a continuing headache and, notably, developed hallucinations. In addition to his altered mental status, he had neck stiffness. We checked possible causes of the psychiatric change including blood sugar, ammonia, lactate, electrolytes, calcium, liver enzymes, and markers of kidney function and infection, all of which were normal. Brain computed tomography did not show any change that could explain his mental change. We concluded that his hallucinations were the result of intracranial hypotension due to CSF leakage after the lumbar puncture. Treatment with acetaminophen, rehydration, and bed rest were initiated, and his mental status improved progressively within hours. Our case supports the idea suggested by Loures and colleagues\textsuperscript{1} that psychiatric symptoms can occur as a result of CSF leakage after a lumbar puncture. However, there are differences between our case and theirs. First, the main psychiatric symptom was hallucinations in our patient and behavioural dysfunction, disinhibition, and impulsivity in theirs. Secondly, the onset and period to remission of the psychiatric

doi:10.1093/bja/aes289