

ORBEYE IN PERIPHERAL NERVE AND BRACHIAL PLEXUS SURGERY

WITH PROF TOM QUICK, CONSULTANT IN PERIPHERAL NERVE AND BRACHIAL PLEXUS SURGERY AND AN ASSOCIATE PROFESSOR AT THE UNIVERSITY OF BRISTOL AND UNIVERSITY COLLEGE LONDON

Professor Quick has been using the ORBEYE for his surgery and has noticed benefits around ease of use and the very short learning period necessary to gain the most out of the technology. Here he tells us about some of the specifics of those benefits.*

Visualisation with ORBEYE:

For supra- and infra-clavicular brachial plexus surgery I have noticed that the range of view points; caudal, cranial, medial and lateral the ORBEYE allows is greater than is possible with the naked eye or with loupes. Looking over the top of the anterior scalene to find the phrenic, up to the C5 root, down under the clavicle or following the long thoracic nerve, the ORBEYE allows clear visualisation.

The ease of use and set up means that where the microscope is usually only used in small parts of the surgery the ORBEYE is easily applied from the incision to wound closure. The wide field of vision, the illumination and the ease of all viewers in the room to maintain a 3D view on the operative field whilst maintaining good posture are all benefits of this system over the traditional methods of loupes or microscope.

The ability to quickly move magnification and position and view point, all facilitate surgery in the brachial plexus. With nerve tumours, the ability to zoom in and out whilst maintaining focus clearly demonstrates the necessary anatomy to allow safe extra- and intra-neural dissection. The ability to use differing light illumination and contrast allows vascular visualisation. All of which allow better than naked-eye assessment of these characteristics of the mass and improve the surgeon's ability to find safe dissection planes.

Ergonomics with ORBEYE:

ORBEYE allows improved posture during surgery, no more leaning over the wound, a neutral balanced posture can be maintained throughout the case as the ORBEYE undertakes all the moving.

Team Surgery with ORBEYE:

I have undertaken studies to assess the impact of the ORBEYE on the surgical team and was struck by the engagement of the whole theatre team due to this technology.

“ Operations feel safer, with better team cohesion with ORBEYE.”

It has an ability to maintain the attention of those not in the sterile field, keeping the whole team apprised of the stage in the operation and encourages learning about what the steps are and what their role in that will be. Such engagement is not possible when the surgical field is not visible to the team and even if only shown in 2D. There is a captivating effect of the deep bright 3D visualisation which means everyone is keen to keep an eye on the operation. This means that communication in theatre around the case and education around the pathology and the procedure, the steps and the team's role in this is maximised.

There is from this, an improvement in efficiency which quickly negates any time required for set up. Operations feel safer, with better team cohesion with ORBEYE.

Education both of clinical colleges and allied health staff is enhanced with the ORBEYE- the ability to share an experience which is usually only available for one other two observers within the sterile field can be shared and recorded. The engagement seen with the 3D visualisation is inspiring and really gives observers an enhanced appreciation and understanding of what surgery is.

Prof Tom Quick, Consultant in Peripheral Nerve and Brachial Plexus Surgery and an Associate Professor at the University of Bristol and UCL

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**Unpublished data awaiting submission*