IQ-AI Ltd

("IQ-AI" or the "Company")

Strategy Update – The benefits and significance of a Standardised Imaging Protocol

In June of this year (2020), Neuro Oncology published their consensus recommendations for the dynamic susceptibility contrast (DSC) MRI protocol available in IB Neuro™. This recommended protocol was the outcome of a large subcommittee of the Jumpstarting Brain Tumour Drug Development Coalition and provided evidence-based Best Practices for routine clinical use. IB Neuro, the flagship product of IQ-AI's subsidiary Imaging Biometrics (IB), was the first commercially available DSC perfusion approach and remains the only platform that automatically generates quantitative output; output that has been spatially validated with biopsy samples by multiple groups and enables objective longitudinal monitoring of treatment.

Being the acknowledged standard in dynamic susceptibility contrast (DSC) imaging is without doubt a notable milestone and this national consensus recommendation is long overdue. MR DSC is the most common perfusion technology used for the evaluation of brain tumours, but most sites have yet to adopt or have not yet fully comprehended the value of having proven quantitative biomarkers available for brain tumour assessment. This may be due to decades of inconsistent and suboptimal ways of acquiring and/or post-processing DSC data. Or maybe it is because improperly implemented leakage correction algorithms were used in studies that led to mixed, inconsistent, or controversial publications that left the healthcare community questioning the robustness of DSC imaging. The lack of staffing and resources may have also impeded adoption. Whatever the circumstances were at the time, they now no longer apply.

The post-processing of DSC data has evolved since the inception of IB in 2007. At that time, graduate students and post-docs in the lab of IB's co-founder, Kathleen Schmainda PhD, at the Medical College of Wisconsin would take up to an hour to process one perfusion map. Now fully automated, a full array of perfusion parameter maps is generated within seconds. In addition, exclusively licensed technology transforms the inherently variable MR data to a fixed and known scale. This approach, demonstrated to be superior to various tissue normalization approaches, quantifies output values across scanner vendors, field strengths, patients, and timepoints and allows for longitudinal comparison. Moreover, IB remains focused on advancing the field of MR DSC imaging, as recently evidenced by receiving two major NIH grants. Together, with an outstanding team of clinical and scientific collaborators, IB is well-positioned to further its lead in brain tumour imaging and treatment monitoring and apply those learnings to other cancers and pathologies beyond the brain, setting new standards.

So, what's next?

In the last 18 months, the team at IB has embedded its core processing libraries, including the DSC technology in IB Neuro, in standalone software applications. Downloadable from IB, these software solutions can be networked between any site's MRI scanner(s) and PACS. Acquired datasets are processed and automatically routed to the PACS for viewing and interpretation. This automated processing is ideal for any size site as volume-based pricing allows for affordable and immediate access for any clinic. Recently, Keck Medical Center of USC acquired IB's approach for the automated generation of quantitative parameter maps. Keck Medical Center is one of 71 cancer centres having obtained special designation by the US National Cancer Institute (NCI), placing

them in the top 4% of the approximately 1,500 cancer centres in the US. These centres provide cutting-edge treatments to patients and are typically located in large metropolitan cities across the USA.

On average, brain tumour patients will receive between 3 and 5 follow-up scans per year to monitor treatment. Thus, each site performs several thousand neuro MRI exams annually, which represents a tremendous opportunity for IB Neuro. For example, if each site performed 3000 DSC exams at a nominal fee, the growth potential is boundless. Moreover, IB's approach is not limited to NIH cancer centres in major metropolitan cities. A tiered pricing structure makes it possible for any sized institution to standardise its brain tumour imaging protocol.

The true value of IB Neuro's recommended DSC approach is in its ability to quantify DSC perfusion imaging data regardless of where, when, or on which scanner platform the data are acquired. This means that patients could obtain their follow-up scans at any one of the more than 6,000 hospitals or 7,000 imaging centres, have the data processed by IB Neuro, and sent to their treatment team. Prior datasets can be compared to the most current and be quantitatively assessed to evaluate changes in tumour size, location, etc. It is a convenience that brain tumour patients and their families deserve and, more importantly, it is a proven biomarker that objectively answers many questions faced by today's radiologists, oncologists, and surgeons as they provide care for these patients.

Along with Keck Medical Center, other cancer centres are reaching out to IB with interest in IB Neuro and other IB Software. As more clinicians become aware of the value of a standardised DSC imaging protocol, IB anticipates that many other hospitals and imaging centres will follow suit. Making this technology widely available and affordable was an initial goal of the founding team at IB, and it may soon become a reality for the benefit of patients.

ABOUT Imaging Biometrics, LLC

Imaging Biometrics®, a subsidiary of IQ-AI Limited (LON:IQAI), develops and provides visualisation and analytical solutions that enable clinicians to better diagnose and treat disease with greater confidence. Through close collaboration with top researchers and clinicians, sophisticated advancements are translated into platform-independent and automated software plug-ins which can extend the base functionality of workstations, imaging systems, PACS, or medical viewers. By design, IB's advanced visualisation software seamlessly integrates into routine workflows. For more information about Imaging Biometrics, visit the company's website at www.imagingbiometrics.com.