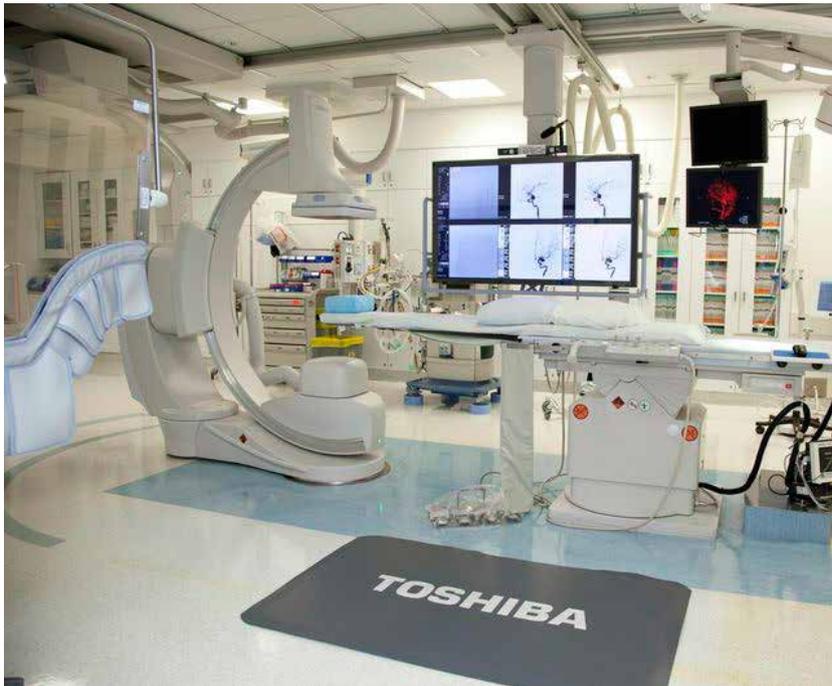


Toshiba's New Infinix-VF-i Biplane System at the Montreal Neurological Institute "The Neuro" Improves Patient Diagnosis and Treatment



The diagnosis and treatment of potentially life-threatening neurological conditions such as aneurysms and strokes will be significantly improved as a result of cutting-edge technology at the Montreal Neurological Institute and Hospital – “The Neuro”, at McGill University and the MUHC. The new angiosuite offers significant advantages to patients and physicians, the most important of which is improved safety and outcomes.

- Creates a 3D “road map” of the brain’s vasculature with greater accuracy and rapidity. Like a GPS tracking system, the roadmap provides 3D images of the brain’s tiny vessels in real time. A crucial tool for radiologists handling often complex and difficult interventions. The roadmap ensures safer interventions and helps decision-making in real-time.
- Higher quality images, increased accuracy and precise visualization of arteries and interventions, due to new, sophisticated imaging software. This aids in more accurate diagnosis and interventional procedures.
- Increased speed and flexible geometry of the angiosuite unit means shorter examination and treatment time, which is especially critical in cases such as stroke and rupture of brain aneurysms. This is paramount since The Neuro has been designated a Centre for Level 3 care in stroke patients.
- Significantly reduces radiation exposure of patients and radiologists by as much as 45% compared to previous technology. In fact, the radiation dose can be tailored to the needs of each case.
- Flexible design that enables the system to move around the patient instead of having to move patient, which is especially important when an individual is bleeding, intubated or under general anesthesia. A revolutionary five-axis C-arm can be positioned anywhere around the patient. The design enables better scanning angles allowing physicians to more easily diagnose the problem (i.e. aneurysm or occluded artery) and verify and obtain the optimal position of endovascular devices, like coils or stents.

Toshiba's Infinix-VF-i Biplane System was recently installed at the Montreal Neurological Institute. The new angiosuite offers significant advantages to patients and physicians, the most important of which is improved safety and outcomes.

“Toshiba's track record for excellent service also was an important consideration. I have worked with Toshiba equipment for a number of years and I have to say that the service has been quite impeccable.”

- Teaching and training tool for the next generation of health care providers.

“The new angio suite offers distinct advantages in providing more accurate visualization of the brain's vasculature,” said Dr. Donatella Tampieri, Director of The Neuro's Neuroradiology Department. “This is highly advantageous in enabling us to deliver treatment that demands precision and speed when inserting catheters, coils and stents into the brain's fragile arteries thereby also reducing the radiation exposure of the patient. Overall, the combination of increased speed, precision, sophisticated design and reduced radiation means an improved outcome for our patients.”

“We are pleased to have this exceptional new angiosuite at the service of our patients,” said Dr. Guy Rouleau, Director of The Neuro. “At The Neuro, staff see the most complex cases – those patients for which treatment is very specialized and often very technologically involved. The new angiosuite system ensures we provide the highest level of tailored care to each patient.”

The speed of the Toshiba Infinix-VF-i Biplane System will help handle a burgeoning annual case load. In 2011, 374 patients were treated for aneurysms, strokes, and other cases of brain embolisms that required scanning.

The Neuro:

The Montreal Neurological Institute and Hospital – “The Neuro”, is a unique academic medical centre dedicated to neuroscience. It is a research and teaching institute of McGill University and forms the basis for the Neuroscience Mission of the McGill University Health Centre. Founded in 1934 by the renowned Dr. Wilder Penfield. The Neuro is recognized internationally for integrating research, compassionate patient care and advanced training, all key to advances in science and medicine. Neuro researchers are world leaders in cellular and molecular neuroscience, brain imaging, cognitive neuroscience and the study and treatment of epilepsy, multiple sclerosis and neuromuscular disorders.

Dr. Donatella Tampieri, Director of The Neuro's Neuroradiology Department introduces the new angiosuite, during its inauguration at the Montreal Neurological Institute. “The Infinix-VF-i Biplane System offers distinct advantages in providing more accurate visualization of the brain's Vasculature. Overall, the combination of increased speed, precision, sophisticated design and reduced radiation means an improved outcome for our patients.”





Interview with Dr. Donatella Tampieri, Director of the Neuro's Neuroradiology Department.

"The major advantage with the Infinix-VF-i Biplane is the image quality and Volume Navigation 3D roadmapping".

An interview with Dr. Donatella Tampieri, Director of The Neuro's Neuroradiology Department.

Tell us a about your role as the Director of The Neuro's Neuroradiology Department?

Thank you very much for giving me the opportunity to present our department and what we do here at the Neuro's Neuroradiology Department. I have been the director of the department now for 10 years. Dr Maria Cortes and Dr Denis Melançon, both neuroradiologists, are my colleagues. In our department, we cover everything from diagnostic neuroradiology to interventional procedures. We work very closely with the clinical neuroscience and neurosurgery departments. We have a mandate to push the limit of clinical advancement in research and in patient care. In our role as a partner with the clinical science team, we are always pushing the envelope with neuroradiology. We are always in search of new ways of looking at the structure of the central nervous system and the brain in order to better facilitate patient care. We are also actively researching the implementation of new technologies to help bring new devices into effect to enhance patient care.

Why did you first select Toshiba as your imaging vendor?

I have been working with Toshiba since 2010 when the first Toshiba Aquilion ONE CT scanner

was installed here at the Neuro's Neuroradiology Department. We selected the Aquilion ONE because it was and still is the only CT scanner that can provide full coverage for the brain for CT Angiography and CT perfusion. In my opinion, there is no other CT product that can provide the same level of quality, versatility and specificity that the Aquilion ONE offers. This year, with our new angio suite we do mainly interventional angiographic procedures. We chose the Infinix-VF-i Biplane System because we felt the quality of the images to be superior in terms of spatial resolution for small vascularity. In addition the flexibility of the room enabled by the ergonomics of the system is very important. We are able to bring the patient into this room, place them on the table and then we don't move the patient anymore.



The Infinix-VF-i Biplane System comes with unique C-arm positioning, which provides our team with easy patient access and enables more complex procedures which is very important in neuro interventions. For example, during these procedures it is important that you do not change the patient's position. With this system you place the patient on the table, find your ideal working position and then you maintain this throughout the procedure by simply readjusting the C-arm as required. With other systems on the market, I found none that could adjust the lateral C-arm as freely as Toshiba's system. Toshiba's Infinix-VF-i Biplane System was the preferred choice in addressing this problem with its

Pictured from left to right: Bob Eastick visits with Dr. Maria Cortes and Dr. Donatella Tampieri at the Neuro's Neuroradiology Department to discuss their experience with Toshiba's New Infinix-VF-i Biplane System.



advanced dose reduction technologies with respect to time, distance, shielding and image processing. The agile interactive C-arms reduce Source to Image Distance (SID) and increase coverage, accelerating examinations and limiting x-ray exposure. The flexible C-arms optimize positioning and coverage to manage dose with WorkRite technology that allows clinicians to optimize shielding or change direction of the X-ray beam. Because of the geometry and the ergonomics of the system we have instant access to the patient's body by just moving the C-arm. The patient's position remains unchanged. This is very important as it allows us to return to our original position without losing any of the data that we have. To conclude we chose the VF-i biplane system because of a combination of access, coverage, image quality and workflow efficiency. Toshiba's track record for excellent service also was an important consideration. I have worked with Toshiba equipment

for a number of years and I have to say that the service has been quite impeccable. We have always been very well served.

What do you like most about working with Toshiba?

The equipment is very solid and the people at Toshiba are committed to working directly with us from start to finish. Toshiba's organization has always been very sensitive to our clinical needs and I think this is a very strategic combination. Toshiba is staffed by dedicated employees who believe strongly in serving and pleasing customers. You can have the most beautiful machine in this world but if it is not performing and you don't have the required service and support, it can be difficult to solve problems quickly and easily. Toshiba's service organization is accessible with one phone call, empowering each service representative with the options they

“The Infinix-VF-i Biplane provides our team with greater confidence when navigating complex vascular structures, enabling us to perform complicated interventions more quickly and accurately.”



need to solve cases quickly and fairly. Their applications team is also phenomenal devoting a great deal of time and effort to tailor our machine to the way we work. Consequently the speed of our exams have gone down tremendously. I think it is a combination of phenomenal people, relationships and equipment.

What features of the Infinix-VF-i Biplane System do you like the most? What specific results did you get from using our product?

For us the major advantage is the image quality and the Navigation assisted 3D roadmapping feature available with the Infinix-VF-i Biplane, providing us with greater confidence during difficult interventional procedures. It can be challenging to accurately navigate and interpret the vascular anatomy for precise device implantation during interventional procedures. With Toshiba's real-time 3D Navigation Roadmap we can display the deployment of coils during the intervention of a cerebral aneurysm with exceptional clarity and precision.

The Volume Navigation links the movement of the system components with the fusion 3D and fluoroscopic display. Therefore despite changes in the position of the table and C-arm, the 3D overlay is automatically aligned with the fluoroscopic image with high accuracy.

The fact that we can move the frontal C-arm back and forth and use it also for teaching purposes is a huge benefit. We demonstrate during our teaching sessions how Volume Navigation takes 3D roadmapping to the next level with two display modes and three manual adjustments to optimize the image at any stage of the procedure. These features provide the tools neuroradiologists require to navigate complex anatomy with greater precision and control. Not only is the resolution beautiful but above all the reliability of the execution of

the procedure is what matters most. Now we can manage a brain aneurism treatment in less than an hour. The Volume Navigation enables better confidence when decoding and navigating complex vascular structures. Consequently it helps us to perform complicated interventions with high speed and optimum precision. We are very targeted in what we do in terms of procedure. This has reduced the time of execution of the procedure which also enables us to minimize radiation exposure to patients.

Would you recommend the Infinix-VF-i Biplane System to your peers? If so, why?

Yes, I would certainly recommend the Infinix-VF-i Biplane System to peers as it is a unique product. The Volume Navigation feature available with the Infinix-VF-i Biplane provides our team with greater confidence when navigating complex vascular structures, enabling us to perform complicated interventions more quickly and accurately. Infinix-VF-i Biplane System is another example of Toshiba's commitment to developing industry-leading technology. There are not many units on the market like this - it is very advantageous helping our hospital to improve diagnostic confidence, workflow and patient outcomes.

What does the future of neuroradiology hold in your opinion?

My vision would be to have an integrated system enabling CT and low contrast imaging during angiography. From the angiography point of view, I believe the virtual insertion of a device coil and stent could be improved. In an ideal work, it would be possible to do a user friendly preparation of our intervention before we do the actual intervention. This would aid patient education enabling patients to better understand their condition and the treatment plan before they sign the consent. There is still a bit of work to do when it comes to measuring devices. In today's market there are so many different stent devices from different vendors. I think if we could make a workstation more user friendly to enable a selection of applicable stents along with an opportunity to conduct virtual surgery before actual surgery, such developments could further enhance patient care.

Dr. Tampieri,
Thank you for this Interview.