

PHILIPS

SmartPath

Customer story



High-performance MR is only an upgrade away: the Saga Medical Center Koseikan experience

Saga Medical Center Koseikan (SMC Koseikan) is a key hospital in the Saga Prefecture of Japan that has been certified as a regional medical support hospital, meaning it provides essential emergency medical care to the region. With 450 beds and an active policy to scan all emergency patients in the same day, necessary upgrades can be a complicated procedure – managing case loads, emergency patients, hospital construction and more. This helped define the key criteria behind the MR upgrade decision: improve image quality, shorten scan times and minimize construction interference and imaging downtime across the hospital.

The SmartPath to Ingenuia Elition X upgrade was chosen, as it allowed SMC Koseikan to shorten imaging times while improving image quality, reduced construction costs and downtime, and made sustainable use of the existing on-site magnet.

“In the past, the entire spine was captured at 3 stations, but with SmartPath to Ingenuia Elition X, it is possible to capture images at 2 stations, leading to an important time reduction.”

Mr. Kota Mitsui,
Radiological Technologist,
Deputy Chief Radiological Technologist,
Saga Medical Centre Koseikan, Saga Prefecture

Transforming a 9-year-old scanner into a top of the line 3.0T, delivering powerful clinical performance with a fraction of the downtime and cost

When their Ingenia 3.0T scanner reached 9 years of use, SMC Koseikan knew it was time to start thinking about the future. With the End of Life period approaching, they considered the options and priorities for the future of their MR operations: the urgency to improve scanning efficiency and capability balanced with the pressure of reducing downtime and construction costs. “The hospital began talking about updating equipment as part of a medium- to long-term plan, and we were concerned about the potential cost of an entirely new magnet installation.” If this could be done in a sustainable matter that minimized environmental impact – even better! After investigating their options, SMC Koseikan realized that the SmartPath to Ingenia Elition X offered the best of all three priorities.

The upgrade to Elition included the new Vega gradient which delivered high SNR and sharp, clean images while also shortening scan times, delivering the clinical boost that was desired. By upgrading the existing scanner instead of installing an entirely new magnet, SMC Koseikan was able to reduce construction costs and minimize downtime, avoiding costly interruptions to their scanning and emergency operations. Finally, the upgrade reused several components of the original scanner while refreshing the rest, reducing the environmental impact of the upgrade and keeping the carbon footprint of SMC Koseikan’s MR operations low.



“The upgrade made effective use of our Ingenia 3.0T magnet, reduced construction costs and downtime, improved our clinical performance and extended the support coverage on the scanner.”

**Mr. Kota Mitsui,
Radiological Technologist,
Deputy Chief Radiological Technologist,
Saga Medical Centre Koseikan, Saga Prefecture**

Sharper and cleaner images without increasing scan times, thanks to the Vega gradient and SmartSpeed

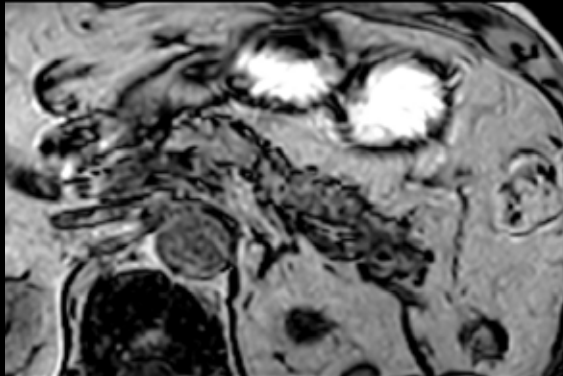
The team at SMC Koseikan was impressed by the image quality of the new system, “after installing the new Vega gradient, we were surprised by the sharp and clean images that we could produce even in short scan times.” SMC Koseikan no longer had to choose between short scan times and high image quality, now they could achieve both. In addition, slicing thickness has decreased in limb joints, and they have seen uniformity improvements in wide-area imaging – another benefit of upgrading to the Vega gradient. The entire spine used to take 3 stations to capture, but the SmartPath to Elition X upgrade has decreased that to 2 stations, resulting in a reduction of total imaging time. However, hardware isn’t the only thing that has been updated in the imaging department, SmartSpeed AI has further enhanced imaging

operations and made it possible to obtain images with high SNR in a short period of time. “Even doubling the scanning speed results in very little SNR deterioration or image quality impact, so it has been easy to apply our protocols and get sharp, clean images for every scan.” With the reduction in scan times, SMC Koseikan has been able to expand their routine imaging protocols, adding 3D sequences that have been highly praised by the radiologist team as easy to read. These scan efficiency improvements also benefit patients that struggle with lengthy MR exams, for example claustrophobic patients, as SMC Koseikan can speed up the scan time without compromising image quality. Next to these general benefits on scan times and image quality, SMC also discovered benefits to specific imaging techniques.

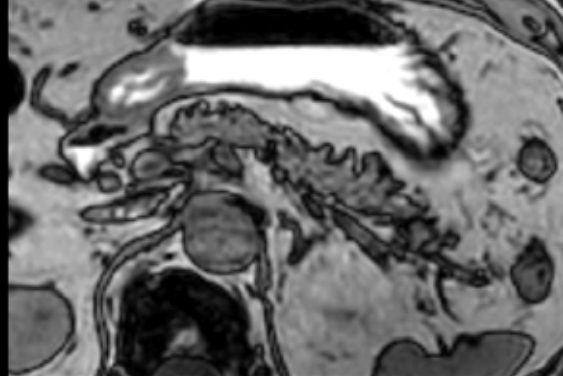


Routine exam, 3mm Dual FF1 of SmartPath to Ingenia Elition X High SNE.

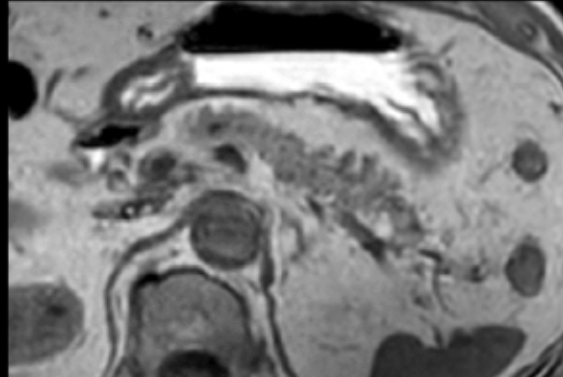
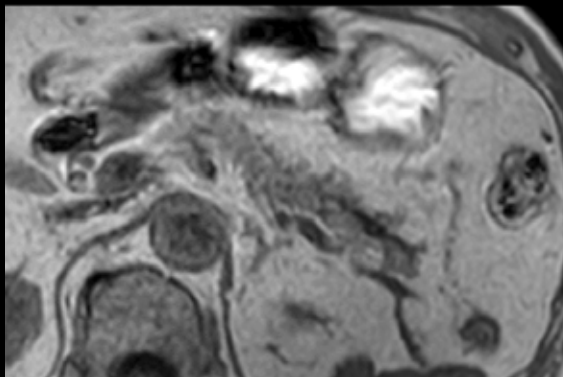
Ingenia 3.0T



SmartPath to Ingenia Elition X



Out of phase

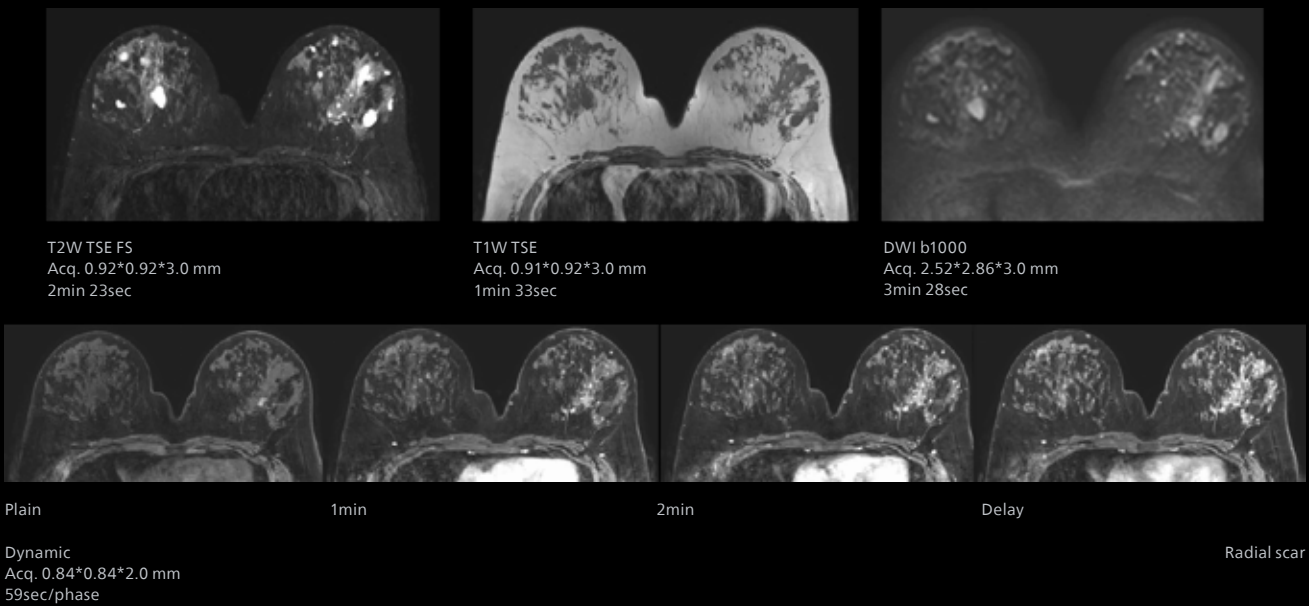
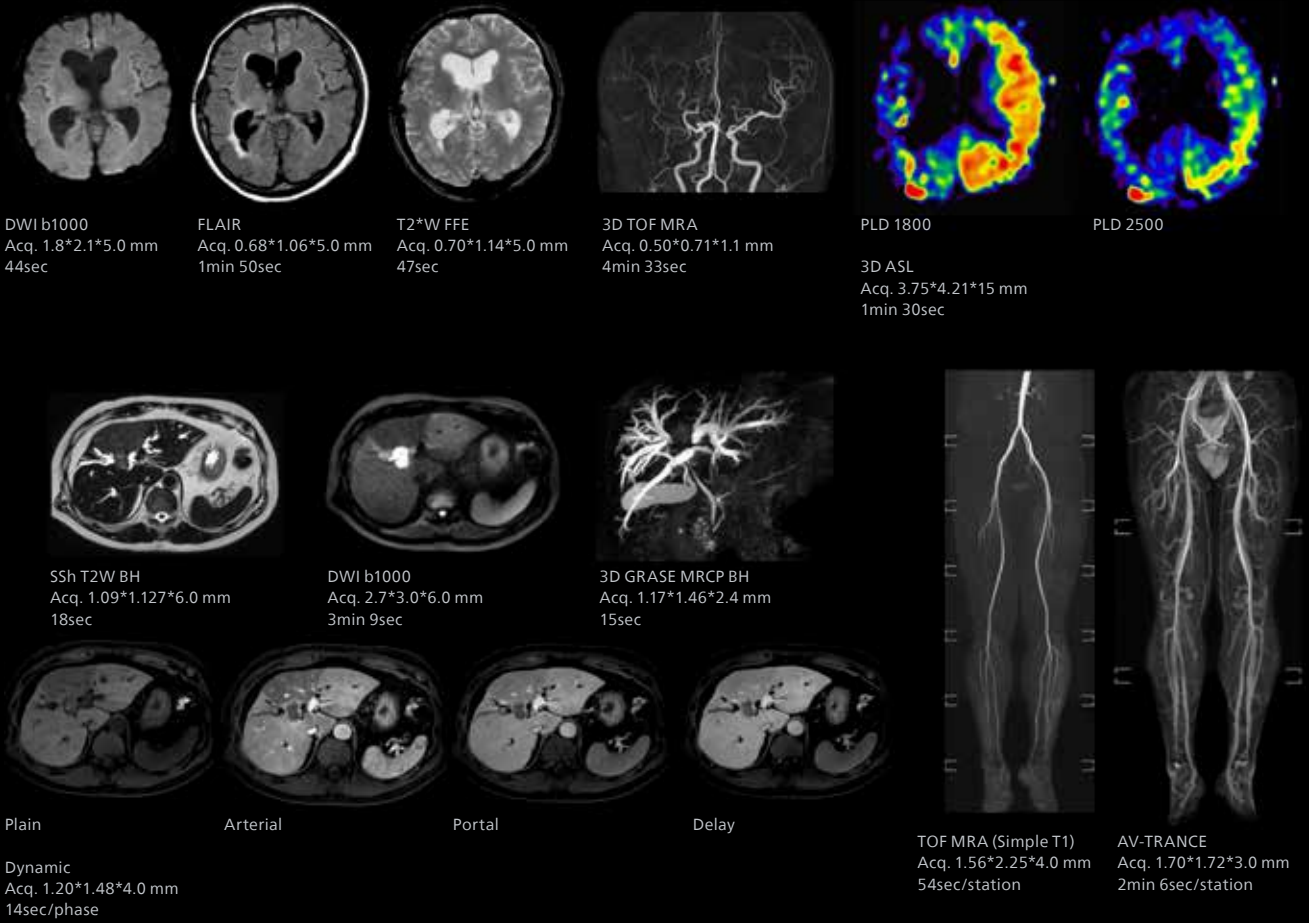


In phase

“Image quality of non-contrast-enhance MRA and DWIBS of the lower extremities has been noticeably improved.”

Mr. Kota Mitsui,
Radiological Technologist,
Deputy Chief Radiological Technologist,
Saga Medical Centre Koseikan, Saga Prefecture

Routine exams from Smartpath to Elition upgrade at Saga Medical Center



Reducing backlog agenda and creating space for emergency patients

With SMC Koseikan's policy of accepting all requests and scanning emergency patients on the same day, MR staff had previously been overwhelmed with examinations and struggled to manage the case load. With the introduction of SmartPath to Ingenia Elition X, imaging time has been reduced while simultaneously improving

image quality, creating more space in the scanning calendar and reducing overtime work for clinicians. Outside the exam room, 8 Radiologists rotate through MR examinations, and having two scanners with a unified user interface has also benefited reading practices and improved overall efficiency of the radiology department.

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