



Clinical Experience with Revolution ACT

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Our clinic has a primary focus on neurosurgery and internal medicine. The key priorities for a replacement CT system were: perform wide coverage imaging in one breath hold for our geriatric patients; generate high-quality images at low dose for young or follow-up patients; reduce the exam time and improve throughput; and realize a balance between cost and product specifications.

We examined the economically efficient Revolution™ ACT as a potential replacement system. One feature, the digital tilt, would enhance comfort in patients with severe kyphotic posture for head imaging while also assisting in patient positioning. The combination of Organ Dose Modulation to reduce dose and ASiR™ for low-dose, high-quality imaging contributes to dose reduction in young and follow-up patients. SmartPlan, the automatic recognition system of target areas, would improve our throughput by reducing time spent planning imaging range and also provide us with better control of the device during image acquisition.

We chose Revolution ACT and found it delivers the imaging data our clinicians need to make confident diagnostic decisions. Furthermore, it has made a significant impact on reducing physical stress in patients, especially those with a strong kyphotic posture. Digital Tilt enables the acquisition of

symmetrical and aligned images in patients who cannot lie in a supine position or suffer from contractures and scoliosis. The extended gantry tilt coverage and adjustable table further helps with patient positioning. The time spent positioning patients has significantly been reduced and our throughput has improved.

In every neuro imaging study, we now provide excellent contrast and high-quality reconstructed coronal views, which are routinely required for subdural hematoma evaluations (Figure 1A). In cases of suspected pulmonary lesions, Revolution ACT reduces the need for additional imaging tests by providing 1.25 mm thick slices that are reconstructed for further evaluation (Figure 1B).

While thin-slice imaging previously resulted in an increase in noise, ASiR minimizes this effect. Our geriatric patients often complain of pain in their chest due to falls. With Revolution ACT and ASiR, we can see tiny details in the ribs and the 3D reconstructed images assist when explaining injuries to our patients (Figure 1C).

After implementing Revolution ACT, our CT imaging volume has increased and we believe it is a direct result of the high-quality, low-dose imaging that we deliver. This system has helped us fulfill our mission to deliver advanced medical care to our patients. ■

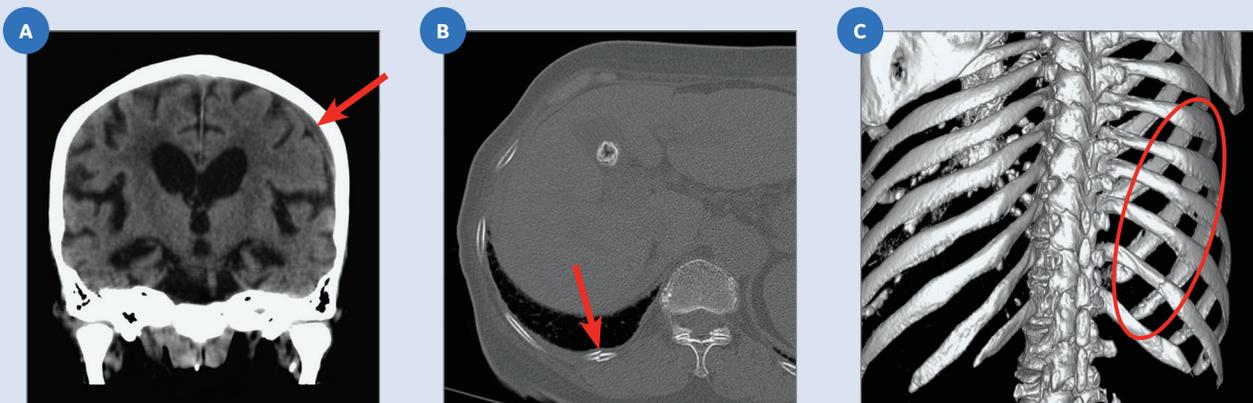


Figure 1. (A) Coronal 5 mm, (B) axial 2.5 mm and (C) 3D reconstructed images.