INFX-8000V Interventional Angiography System

INFX-8000V interventional angiography system

In catheter intervention for cerebrovascular disease, it is important to support the treatment of small and complex lesions, to increase examination efficiency, and to improve treatment outcomes. To meet these requirements and to further enhance our market competitiveness, Toshiba Medical Systems Corporation has developed the INFX-8000V X-ray interventional angiography system.

The main features of this system are as follows:

- Volume navigation
  A three-dimensional (3D) vascular image is superimposed on the fluoroscopic image in real time to clearly depict the positional relationships between vessels and lesions and increase treatment efficiency.
- Fluoroscopic image enlargement application
  Noise-reduction processing, which is attracting great interest in the market, is applied to enlarged fluoroscopic images, providing high-quality enlarged images of minute lesions and intravascular therapeutic devices.
- Imaging of intracranial stents (cerebrovascular reconstruction devices)
  Newly developed high-resolution image processing allows an intracranial stent, which is difficult to visualize using conventional imaging, to be clearly depicted, resulting in safer treatment.

Image produced by volume navigation

Aquilion™ PRIME X-ray Computed Tomography Scanner

Aquilion™ PRIME whole-body X-ray CT scanner

Clinical image of abdominal aortic aneurysm (data courtesy of Rode Kruis Ziekenhuis Hospital, the Netherlands)

Toshiba Medical Systems Corporation has developed a new Aquilion™ PRIME series with an 80-row detector in the premium market segment for whole-body X-ray computed tomography (CT) scanners.

The main features of this CT scanner are as follows:

- High-quality, high-speed scanning
  The combination of a detector and a fast data acquisition system that can acquire 160 slices with the world's smallest slice thickness(*) of 0.5 mm supports ultrahigh-speed helical scanning. This is particularly useful in cardiac, emergency, and pediatric examinations.
- Low exposure dose
  Toshiba's new adaptive iterative dose reduction (AIDR) image reconstruction technology, which can reduce the exposure dose by up to 75%, provides high-quality images with low-dose scanning. This is particularly important when examining pediatric patients, in whom the dose should be reduced as far as possible.
- Expanded clinical usefulness
  The system supports dual-energy helical scanning, in which scanning is performed at two different energies to improve the detection of abnormalities such as calcification. Toshiba's unique helical scanning method minimizes exposure to tissues that are particularly sensitive to X-rays, such as the breast and eye.
- High throughput
  The system features a newly developed image reconstruction system with an outstanding reconstruction speed of 50 images/s, resulting in higher examination efficiency. A large gantry aperture measuring 780 mm in diameter minimizes patient discomfort during scanning and improves patient access. These features are particularly important when examining emergency cases.

(*) As of February 2011 (as researched by Toshiba Medical Systems Corporation)