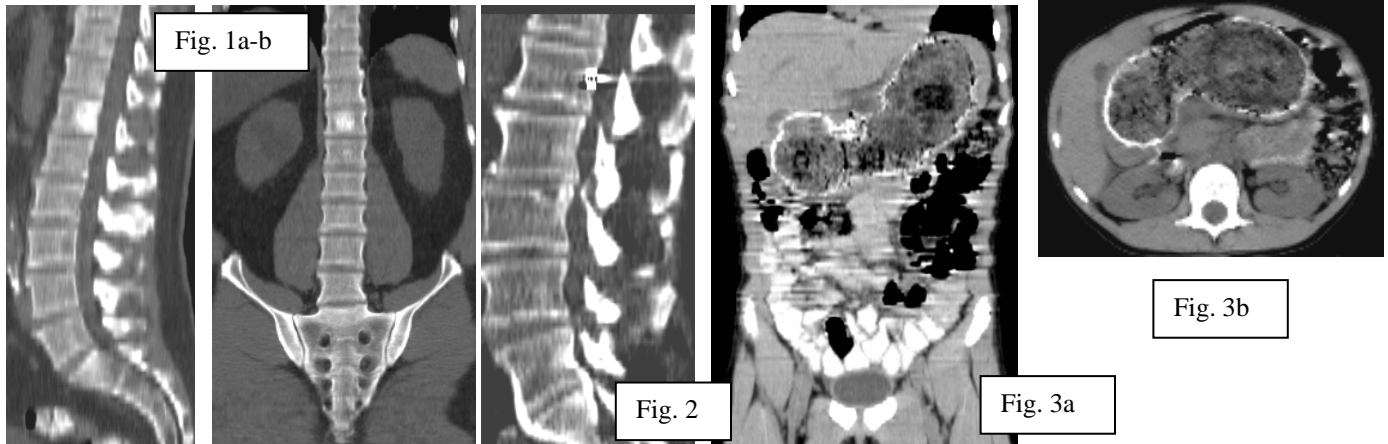


Advanced Ultrafast CT Techniques: State of the art (Part I)



Q. Can you tell me about the new ultrafast CT scanner at AIC?

It is a new-generation multislice, multi-detector ultrafast helical CT scanner capable of full CT imaging including neuro and body imaging with amazing speed and accuracy.

Q. What are some of its unique features?

It is by far the most advanced CT scanner in the area with the highest speed (shorter exam times) and highest resolution. This allows studies not usually available on standard spiral CT's such as **coronary calcification scoring, 3D and 4D CT Angiography (CTA), amazing 3D and multiplanar reformations, CT Arthrography, increased resolution**, etc. Some of these are performed on an **Advanced 3D Silicon Graphics workstation**.

Q. Give me an example of routine abdominal-pelvic scanning technique.

Since the scanner is so fast, we routinely do 3 sequences utilizing 5 mm thick (instead of 10 mm) axial images with an overlap through the whole abdomen and pelvis precontrast, post-contrast (arterial-venous phase) and delayed. This allows for improved lesion detection.

Q. Please explain the images at the top?

Fig. 1a-1b demonstrate an exquisite sagittal and **curved** coronal reconstructions through the T-L spine and sacrum showing a sclerotic area in T12. Fig. 2 shows a sagittal reformation through the L-spine showing a bullet behind L1 vertebral body. Fig. 3a-3b demonstrate axial and coronal reformation of a markedly dilated stomach due to obstruction by a huge trichobezoar (hair bezoar).

Please call me personally for any questions.

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