

LETTERS TO THE EDITOR

How Multidetector CT Can Help Open Bike Locks

From

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Editor:

Multidetector computed tomography (CT) has revolutionized today's medicine. However, only little is known about its impact on everyday problems. Recently, the son of the first author discovered that he could not remember the combination of his bike lock. Fortunately at this point the lock was not on his bike. Conservative problem-solving approaches attempted for several days remained unsuccessful. The little boy was left angry. Therefore, we decided to use an unorthodox method to tackle this problem.

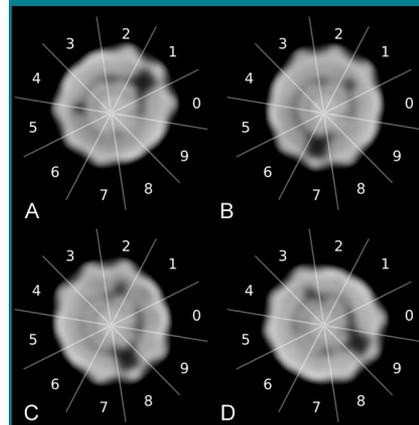
As conventional radiographs deliver only a superimposed image of the complete lock, we here describe for the first time how multidetector CT

helped in identifying the combination of a German-made high-quality bicycle lock.

We used a 64-section CT scanner (Aquillon 64; Toshiba Medical Systems, Nasu, Japan) with 0.5-mm detector collimation and the following parameters: 350 mA, 120 kV, pitch of 0.33, and 0.4-second rotation time. Images were reconstructed by using a smooth abdominal kernel (FC12). Reconstruction was performed with 0.5-mm section thickness in 0.4-mm increments. Orthogonal multiplanar reformations were viewed with the scanner's workstation to identify the correct code combination.

Our result is shown in the Figure. The positions of the dials were prepared to show digit 0 on the right side of the lock. The positions of all other digits are shown on an overlay. By following the position of each notch, one can clearly identify the combination of the lock. It is 1789.

M.D. is a principal investigator of a multicenter study on multidetector CT coronary angiography sponsored by Toshiba Medical Systems and serves as a speaker for Toshiba Medical Systems.



Dials of the lock at 64-section CT in transverse reformation. The individual notches are clearly visible.