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Reply to the letter by Dr. Williams

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Sir,

In response to Dr. Williams's letter, we did not mean to give the reader the mistaken impression that the viewing windows can affect measured Hounsfield units (HU) in helical CT scans. We strongly agree with Dr. Williams that the values of HU for any fixed region of interest (ROI) are the same when viewed with either soft tissue or bone windows. As this is well known, we did not mention in our article that the ROIs for tissue and bone windows were not in the same location in most of the stones (but not all stones, as sometimes the same ROI has been found to be most dense in both windows, in which case the HU values are the same). The reason for choosing different locations of ROIs in bone windows other than those in the soft tissue window is that the bone window showed more details of the internal structure of the stone, so that we can chose our ROI over the most dense area which is not clearly defined in the tissue window. This is the same as the finding of Dr. Williams [1]. However, this was not the aim of our study so we did not mention it.

Contrary to Dr. Williams's impression, we did not suggest that the relationship between HU measurements using both soft tissue and bone windows was unknown

before the data were collected in any section of our article. In the results section, we wrote, "Also, the absolute HU values of the bone window protocol were higher than those of the tissue window protocol" to show that the bone window revealed more details of the internal structure and made the choice of the densest ROI easier than for the soft tissue window.

Finally, we found that it is better to view CT images using both the bone window and the soft tissue window so that we could differentiate between most types of stone. Even in the clinical situation, both windows should be used to study both the renal morphology and the internal structures of the stones.

Sincerely yours,
Khaled Z. Sheir M.D.

Reference

1. Williams JCJr, Paterson RF, Kopecky KK, Lingeman JE, McAteer JA (2002) High resolution detection of internal structure in renal calculi by helical computerized tomography. *J Urol* 167: 322

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