P092 The role of ultrasonography vs CT scan in the follow up after stone surgery

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Introduction & Objectives: The target of the stone surgery is to obtain a total calculi removal or finishing with a low rate of residual fragments. To define properly the concept of stone free is very important to evaluate the accuracy of the different imaging techniques in the follow up of the surgery. The objective is to evaluate the accuracy of ultrasonography (US) and non-contrast computed tomography(NCCT) after retrograde intrarenal surgery (RIRS).

Materials & Methods: A total of 110 patients who underwent RIRS were studied in the third month follow up after surgery. All of these patients were controlled with both, US and NCCT. The sensitivity, specificity, and stone size measured in US were validated by NCCT. Data of the stone size in US were classified into four groups (0–3.5, 3.6–5, 5.1–10, >10 mm) and then compared with NCCT data.

Results: In 110 patients, NCCT detected stones in 74 cases, while US could identify residual fragments in 66. The more differences were founded in the stone size, in this case, the US studies detected more or bigger fragments in 38 patients. About 46% concordance was obtained for the stone size measured by US and NCCT. The detection rate increased with the stone size, but sometimes the amounts of residual fragments were taken as a solitary Stone in the US. Factors such as hydronephrosis and urinoma were similar in the results of both techniques.

Conclusions: The accuracy of the US have a good rate of remaining stones detection but probably the TC could give us more information about the size and distribution of the residual fragments. Sometimes US could overestimate the stone burden or confuse between the amount of dusted stones and real residual fragments. Despite the experience of the radiologist and the anatomy of the patient could be factors to choose the CT as a more sensitive study.