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doi: 10.1093/ndtplus/sfq140

Advance Access publication 11 August 2010

Reply

We thank Tuma for his valuable comments on the issues underlined in our case report ‘Colour Doppler twinkling in kidney stones: artefact or sign?’ [1], supporting the value of twinkling and of ureteral jet in the diagnosis of urinary stones. We agree that, until now, the twinkling has not been adequately evaluated and specified in the standard reporting of urinary ultrasonography of patients suspected with urinary stones. The main difficulties in the dissemination of its use in everyday practice can be due to different causes: firstly, the knowledge of the phenomenon in the radiological community seems to be fragmentary; secondly, the kidneys and the urinary system need to be explored with colour mode after B-mode examination; and finally, it requires a particular type and setting of instrumentation to see easily the twinkling in a reproducible manner [2]. In addition, the new ultrasound probes have a tomography-like capability that has reduced the twinkling appearance compared with the oldest ones. From a purely technical point of view, the twinkling remains an artefact that is useful to unmask false blood flows, but we have ‘provocatively’ used the term ‘sign’ to underline, from the clinical point of view, its positive diagnostic value. In fact, the usefulness of artefacts in the diagnostic echographical work-up is already well known, i.e. when a clear acoustic shadowing distal to an echogenic focus in the gallbladder leads us to the diagnosis of gallstones: it is an artefact but is an important ‘sign’ because it improves and increases all the information necessary to get a more accurate diagnosis.

Finally, in our experience, there is no evidence that twinkling arising from the colon derives from air or faecal material or both, in contrast with some metastatic calcifications of soft tissues like occurring in aortic, carotid, and femoral arteries or prostate or stones within a polycystic kidney (Figure 1).

In conclusion, the twinkling is a technical artefact, which is a clinically useful but not specific sign of urinary stones and/or calcifications that needs to be more widely known in the nephrological and urological specialties.

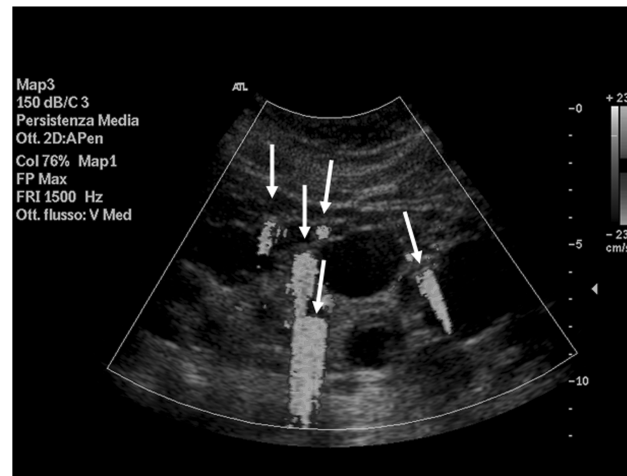
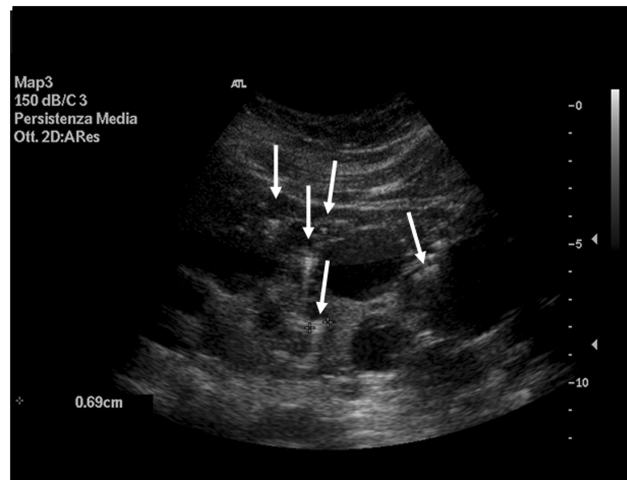


Fig. 1. Twinkling of kidney stones within a polycystic kidney at colour-mode examination.

Conflict of interest statement. None declared.

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