

Letters

Reply

We appreciate the interest of Drs. Loizides and Gruber [1] in our article, “How Reliable Is Sonography in the Assessment of Sialolithiasis?” [2]. They question the pertinence of our results on the basis of the methodology we used, claiming that better results could be obtained when using the latest ultrasound technology. Although they might be right, unfortunately, their view is not supported by any scientific data.

We all prefer to publish results proving a high performance rather than limitations of the imaging techniques we use. Therefore, we were somewhat disappointed to realize that the sensitivity of sonography for calculi smaller than 3 mm was limited. Nonetheless, we believe that it is useful to report our findings because only a few scientific studies have evaluated the sensitivity and negative predictive value of sonography for the diagnosis of sialolithiasis in comparison with a standard of reference [3].

In clinical practice, a variety of factors may influence the results of sonography, including operator experience, clinical findings, and technical equipment. Image resolution is one factor—but not the only factor—because narrow tortuous ducts may obscure small stones even on images with excellent quality. From a scientific point of view, the quality of the reference standard and the size of the stones are crucial.

In our series, experienced operators examined symptomatic patients and used stan-

dard high-end equipment with 7.5–12 MHz transducers and with digital sialography and sialendoscopy as reference standards. Even though the latest generation of ultrasound equipment may include probes with higher frequency, we must consider that clinical routine sonography of the head and neck is commonly performed with equipment including probes in the 7.5–12 MHz range [4].

It is possible that new image processing tools or algorithms may help detect calcium-containing stones and improve results in the future, but there are no data supporting this. Let us also keep in mind that salivary stones may lack significant calcium content.

At our institution, we are currently concluding a study on sialolithiasis using ultrasound equipment of the latest generation with a 7–17 MHz transducer to detect salivary stones and using MR sialography or sialendoscopy as the reference standard. Preliminary results from this study suggest that although the sensitivity increased by 2%, specificity decreased substantially (unpublished data) compared with our reported study [2]. It is possible that this may be explained by fibrotic changes that were mistaken for small calculi. Refining the mesh of the fishnet may also result in an increased by catch.

We believe that it is important to accept the limitations of a negative sonographic examination obtained in clinical routine even by a trained operator. MR sialography, digital sialography, and sialendoscopy are avail-

able and can be used if the clinical situation requires. We should also keep a realistic view about the size of the smallest salivary stones we can reliably detect with sonography, just as a fisherman recognizes the true size of his catch only by measuring it.

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WEB—This is a web exclusive article.

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