Evidence Growing for Value of Salivary Ultrasound in Sjögren’s

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It may only be a matter of time before experts add salivary gland ultrasound score (SGUS) to the diagnostic criteria for Sjögren’s syndrome (SS), as studies continue to produce data showing that the diagnostic performance of classification criteria for the disorder is improved by the addition.

Source: Rheumatology Network

It may only be a matter of time before experts add salivary gland ultrasound score (SGUS) to the diagnostic criteria for Sjögren’s syndrome (SS), as studies continue to produce data showing that the diagnostic performance of classification criteria for the disorder is improved by the addition.

Flaws exist in both classification systems currently used to diagnose SS, the classification criteria from the American-European Consensus Group (AECG) and the American College of Rheumatology (ACR). SGUS lends itself well to evaluating the production and composition of saliva from the salivary glands primarily involved in SS and, relatively inexpensive and noninvasive, is an attractive alternative to the labial gland biopsy recommended by current ACR criteria, especially for patients with only early signs of the disease.

In an article recently published in Rheumatology:Oxford, Takashi Makamura DDS PhD of Nagasaki University School of Dentistry and colleagues pointed out that the current ACR system lacks morphological markers for SS, and that the addition of ultrasound would allow physicians to grade the severity of gland damage and predict treatment outcomes. They felt that, although ultrasound did not improve the diagnostic accuracy of the ACR criteria, the imaging modality would be a useful alternative to any of the three ACR diagnostic items (positive serum anti-SSA and/or antiSSB antibodies, ocular staining score test, or lymphocytic infiltrations in lip biopsy specimens) without modified concordance with AECG criteria.

However, another study authored by Valérie Devauchelle-Pensec MD PhD of Brest University Medical School Hospital in France and colleagues reached quite the opposite conclusion. In a prospective cohort of recently suspected Sjögren’s syndrome, adding the SGUS score to the ACR criteria increased sensitivity from 64.4% to 84.4% and only slightly decreased specificity, from 91.1% to 89.3%,” Devauchelle-Pensec told Rheumatology Network. “So, the diagnostic performance of the ACR classification criteria for SS is notably improved by adding the SGUS score.”

Devauchelle-Pensec also published research in 2013 demonstrating that SGUS improves the diagnostic sensitivity of the AECG criteria from 77.9% to 87.0%; however, there was no improvement in specificity.

Based on their research, Devauchelle-Pensec said she could envision that in the future, salivary gland biopsy might be used only when a patient suspected of SS has negative SGUS.

“In this approach were used, the inconveniences associated with salivary gland biopsy could be avoided in a substantial number of patients,” she said.

Inclusion of SGUS into diagnostic criteria for SS may be inevitable, but more work must be done to standardize and validate the method first. Many studies to date have included scores for a variety of items beyond the main feature related to diagnosis—parenchyma heterogeneity—such as gland size, parenchyma inflammation, precision of borders and more.

Once a scoring system is established, rheumatologists must conduct research to ensure reproducibility of the ultrasound procedures, which can sometimes be examiner-dependent.

References:
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