

## Scoring analysis of salivary gland scintigraphy in patients with Sjögren's syndrome

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The purpose of the present study was to evaluate the validity of a scoring system based on excretion rate of salivary gland scintigraphy in patients with Sjögren's syndrome (SjS). Total scintigraphic scores were compared with the results of the Saxon test. One hundred and twenty-four subjects who were clinically diagnosed with SjS and 11 normal ones underwent salivary gland scintigraphy and the Saxon test. In salivary gland scintigraphy, the difference between maximum and minimum counts after stimulation using vitamin C divided by maximum counts was defined as the excretion rate. We then defined a scoring system with 4 grades: severe dysfunction = 3 (excretion rate < 25%), moderate dysfunction = 2 (25% ≤ excretion rate < 40%), mild dysfunction = 1 (40% ≤ excretion rate < 50%) and normal function = 0 (50% ≤ excretion rate). The summation of the total scintigraphic score (0–12) of all 4 salivary glands was used as a semi-quantitative index indicating total salivary gland function, and total scintigraphic scores were compared with the results of the Saxon test. A significant inverse linear correlation ( $R^2 = 0.95$ ) was observed between total scintigraphic scores and mean values of the Saxon test within a range of abnormal scintigraphic scores ( $\geq 4$ ). The scoring system developed in the present study is a clinically available, objective, and reproducible method for evaluation of salivary gland function in patients with SjS.

**Key words:** salivary gland scintigraphy, Sjögren's syndrome, Saxon test