

## **SENSITIVITY AND SPECIFICITY OF DYNAMIC SALIVARY GLAND SCINTIGRAPHY WITH ASCORBIC ACID STIMULATION IN PATIENTS WITH SJÖGREN'S SYNDROME**

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Sjögren's syndrome (SS) is chronic inflammatory autoimmune exocrinopathy, in which the salivary and lacrimal glands are mostly affected, and undergo progressive destruction by lymphocytes, resulting in decreased production of saliva and tears. SS is classified into primary (pSS), and secondary (sSS). European Diagnostic Classification Criteria for SS have six items. The fourth item is, salivary gland involvement, diagnosed by one of the tests: unstimulated whole sialometry, parotid sialography, and dynamic salivary gland scintigraphy (DSGS).

**THE AIM OF STUDY** was to estimate sensitivity, specificity, positive and negative predictive value and accuracy of DSGS on objective evidence of xerostomia in patients with diagnosed SS.

**MATERIALS AND METHODS:** Twenty patients with SS, fifteen (75%) with pSS and five (25%) with sSS, 85% female and 15% male, and ten controls with no evidence of xerostomia and SS underwent DSGS. DSGS was performed after iv. injection of 370 MBq Tc99m-pertechnetate, with gamma camera above parotid (PG), submandibular salivary glands (SG) and oral cavity (OC). DSGS lasted 60 minutes (one frame-one minute), with per os stimulation in 40. minute with ascorbic acid tablet. Time-activity curves (TAC) were generated over PG, SG and OC as regions of interest. Activity in OC was estimated on static scintigram 90. minutes after iv. injection. Using TAC and scintigrams, DSGS findings were graded from 1 to 4 according to Shall at all. (1- normal finding, 2- moderate function damage, 3- serious function damage, 4- very serious function damage ).

**RESULTS:** All patients with SS had pathological scintigraphic (SCT) finding: SCT grade 4 had 12 (60%), grade 3 had 7 (35%) and grade 2 had 1 (5%) patient. Estimated DSGS sensitivity was 100%, specificity 80%, positive predictive value 91%, negative predictive value 100% and accuracy 93%.

**CONCLUSION:** DSGS have high sensitivity, specificity, positive and negative predictive value and accuracy in detecting xerostomia in patients with SS.