

DEWS	DRY EYE: DIAGNOSTIC TEST TEMPLATE	
RAPPORTEUR	Ikuko Toda	10 th Oc 2004
TEST	Salivary and lacrimal gland biopsy	
TO DIAGNOSE	Sjögren's Syndrome	REFERENCES
VERSION of TEST	[1]	
DESCRIPTION	Small piece of each gland is excised and examined under a microscope for pathologic changes, such as lymphocytic infiltration. .	
CONDUCT of TEST	<p>1.(Salivary gland biopsy) After local anethnesia with 2% xylocaine, a small vertical incision is made at the center of lower lip mucosa, which is then separated with a mosquito clump. Yellowish minor salivary glands are exposed by themselves. More than 4 glands are excised, fixed with 10% formalin, and paraffin-embedded . Wound is sutured with 7-0 nylon.</p> <p>2. (Lacrimal gland biopsy) Eye is opened with a speculum, and the patient is asked to look to nasal inferior. A lacrimal gland is protruded at lateral upper edge of the eye. After local anethnesia with 2% xylocaine, a small incision of conjunctiva is made, and part of lacrimal gland(1-2mm) can be pilled out by separating surrounding conjunctiva and then excised. Tissue sample is prepared as the salivary gland tissue.</p> <p>3. The paraffin-embedded samples are sectioned and stained with H-E and examined under a light microscope. The samples are graded by the degree of cell infiltration, according to the standard of Greenspan, et al. If more than 50 mononucleour cells infiltrate around an intra-alobular duct (1 focus), diagnosis of Sjogren's syndrome can be made.</p> <p>4. If necessary, the samples are processed for various immunohistochemical staining and other histopathological procedures for more detailed information.</p>	Xu et al. 1996 ; Chisholm DM et al. 1968 ; Greenspan JS et al. 1974
Web Video	Not available	
Materials:	<ul style="list-style-type: none"> • 2% xylocaine • forceps, scissors, razor, mosquito clump • speculum (lacrimal gland) • 10% formalin, ethanol, xylol, paraffin • Hematoxylin and Eosin • Light microscope 	
Diagnostic value	This version : [NA] Other version: [NA]	
Repeatability	Intra-observer agreement. [NA] Inter-observer agreement. [NA]	
Sensitivity	[NA]	
Specificity	[NA]	
Other Stats	[NA]	
Test problems	<p>a. In older subjects, non-specific lymphocyte infiltration, gland atrophy, and fibrosis, which look similar to SS, may be observed.</p> <p>b. The procedures are invasive.</p>	
Test solutions	a. Final diagnosis should be made by the combination with serology and symptoms.	
FORWARD	Although it is not possible to diagnose SS only with salivary and lacrimal	

LOOK	gland biopsy, it is still important for the final diagnosis of SS.	
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References

Chisholm DM, Masson DK. Labial salivary gland biopsy in Sjogren's disease. *J Clin Pathol* 1968;21:656-60

Greenspan JS, Daniels TE, Talal N, Sylvester RA. The histopathology of Sjogren's syndrome in labial salivary gland biopsies. *Oral Surg Oral Med Oral Pathol* 1974;37:217-229.

Xu KP, Katagiri S, Takeuchi T, et al. Biopsy of labial salivary glands and lacrimal glands in diagnosis of Sjogren's syndrome. *J Rheumatol*;1996;23:76-82.