

Practical Guideline for General Practitioners (GP) to approach to the Patients Suspected to have Primary Sjogren's Syndrome

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Abstract

Sjogren's Syndrome (SS) is a chronic autoimmune disease presenting with clinical hallmark of dry eyes, dry mouth and salivary gland swelling and histological hallmark of lymphocytic infiltration of exocrine glands.

There are three key items for approaching towards Sjogren's Syndrome (SS) including:

- Dry eyes
- Dry mouth
- Salivary gland swelling

A. If there are at least 2 items of above in a patient he/she has to be referred to a Rheumatologist by General Practitioners (GP).

B. If there is only one item of above in a patient, he/she will be referred to a Rheumatologist, when a GP

- i. Confirms that the finding is pathologic and
- ii. Rule outs its other causes in cooperation with related specialists.

C. If there is not any item of above: the GP should forget about Sjogren's syndrome for the time being.

The dryness of eyes is pathologic if there is at least one of below features:

- Duration of at least 3 months
- Gritty or sandy sensation in the eyes
- Use of a tear substitute more than 3 times daily

Dry mouth is pathologic if there is at least one of below features:

- Duration of at least 3 months
- Patient has to wake up at night to drink water because his/her mouth is too dry
- Patient frequently drinks liquids to help in swallowing dry foods

We have to know that salivary gland swelling is always pathologic and chronic or recurrent bilateral parotid glands

enlargement is the compatible state with Sjogren's syndrome when its other etiologies can be ruled out.

Keywords: Dry Eye; Dry Mouth; Salivary Gland Swelling; Sjogren's syndrome

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Letter to Editor

Sjogren's Syndrome (SS) is a chronic autoimmune disease presenting with clinical hallmark of dry eyes, dry mouth and salivary gland swelling and histological hallmark of lymphocytic infiltration of exocrine glands [1].

There are three key items for approaching towards Sjogren's Syndrome (SS) including:

- Dry eyes
- Dry mouth
- Salivary gland swelling

A. If there are at least 2 items of above in a patient he/she has to be referred to a Rheumatologist by General Practitioners (GP).

B. If there is only one item of above in a patient, he/she will be referred to a Rheumatologist, when a GP

- i. Confirms that the finding is pathologic and
- ii. Rule outs its other causes in cooperation with related specialists.

C. If there is not any item of above: the GP should forget about Sjogren's syndrome for the time being.

The dryness of eyes is pathologic if there is at least one of below features [2]:

- Duration of at least 3 months
- Gritty or sandy sensation in the eyes

- Use of a tear substitute more than 3 times daily

The other causes of dry eyes excepting Sjogren's syndrome are including [2]:

- Prolonged working at computer monitor
- Aging and postmenopausal state
- Drugs: Anticholinergics, Antidepressants, Antihistamines, Antiarrhythmic, Antihypertensive, Diuretics, Antiepileptics
- Chemical burns
- Hypovitaminosis A
- Chronic blepharitis or conjunctivitis
- Prior keratoplasty (Lasik)
- Contact lens use
- Impaired blinking disease [trauma, neurologic (5th cranial nerve)]
- Herpetic ocular lesions
- Ocular Pemphigoid
- Stevens-johnson syndrome
- Graves disease
- Lymphoma
- Sarcoidosis, Amyloidosis, IgG4-related systemic disease

(IgG4-rsd)

Dry mouth is pathologic if there is at least one of below features [2]:

- Duration of at least 3 months
- Patient has to wake up at night to drink water because his/her mouth is too dry
- Patient frequently drinks liquids to help in swallowing dry foods

The other causes of dry mouth excepting Sjogren's syndrome are including [2]:

- Aging and postmenopausal state
- Complete fasting, Dehydration
- Anxious individuals
- Drugs (similar to dry eyes)
- Diabetes mellitus
- Diabetes insipidus
- Previous head and neck irradiation
- Sialadenitis due to chronic obstruction
- Chronic viral infections (HCV, HIV)
- Sarcoidosis, Amyloidosis, IgG4-rsd.

The salivary gland swelling is always pathologic.

Regarding acute versus chronic (with or without recurrency) and

unilateral versus bilateral involvement salivary gland swelling has four clinical pictures including:

- Acute bilateral salivary (especially parotid) gland swelling
- Acute unilateral salivary (especially parotid) gland swelling
- Chronic and/or recurrent bilateral salivary (especially parotid) gland swelling
- Chronic unilateral salivary (especially parotid) gland swelling

The common causes of acute bilateral parotid gland swelling are viral infections including [3]:

Mumps, Epstein bar virus, Echo virus and Coxsackie virus.

The causes of acute unilateral parotid gland swelling are: acute bacterial sialadenitis and stones [4].

The causes of chronic unilateral parotid gland swelling are: Tumors, stones, chronic bacterial sialadenitis and Actinomycosis [5].

We have to know that Sjogren's syndrome is one of the causes of chronic or recurrent bilateral parotid gland swelling.

The other causes of chronic or recurrent bilateral parotid gland swelling are including: LINEAR [6]

- Liver disease: Cirrhosis, Alcoholism
- Infectious disease: Tuberculosis, HCV and HIV infections
- Nutritional disease: Malnutrition, Bulimia
- Endocrine disease: Diabetes mellitus, Acromegaly
- And
- Rheumatology: Sarcoidosis, Amyloidosis and IgG4-rds.

General practitioners have to know that the patients suspected to have Sarcoidosis, Amyloidosis and IgG4-rsd must be referred to Rheumatologist too.

Isolated salivary gland swelling of chronic or recurrent bilateral type must be referred to internists and/or Rheumatologist for working up towards the diagnosis, whereas isolated acute bilateral type must be referred to infectious disease specialist and isolated acute or chronic unilateral type must be referred to Otolaryngologist. It needs to be mentioned that swelling of major salivary glands (parotid, submandibular, sublingual) clinically or by imaging (ultrasonography, CT scan or MRI), with more than 3 weeks of duration means chronic swelling and with frequency of three episodes or more per year means recurrent swelling [2].

In the case of isolated pathologic dry eyes, the patient must be referred to ophthalmologist.

The Schirmer test and Slit Lamp examination with corneal staining both have to be done by ophthalmologist [2, 7]. When history regarding drugs and local causes of dry eyes are negative, the patient has to be referred to Rheumatologist (or may be an internist) for working up towards the diagnosis, especially when at least one of above tests (schirmer and corneal staining) is positive.

In the case of isolated pathologic dry mouth, if there is negative history regarding drugs as the cause of dry mouth and local causes could be ruled out by otolaryngologist (with or without cooperation with dermatologist or mouth/dental specialist), the patient has to be referred to Rheumatologist (or may be an

Internist) for working up towards the diagnosis, especially when at least one of the physical findings of Beefy red tongue and bucal salivary pearls can be detected. We have to know that the clinical triad of dry eyes, dry mouth and salivary gland swelling is the main feature of Sjogren's syndrome but this triad is the accessory feature of Sarcoidosis, Amyloidosis and IgG4-rsd.

Items must be done for the patients suspected to have primary Sjogren's syndrome by Rheumatologist's team work are delivered here as a practical Guideline approaching towards the diagnosis of Sjogren's syndrome in three steps (table A):

Table A: Practical Guideline approaching towards the diagnosis of Sjogren's syndrome [2]

Step I: • History and physical examination by Rheumatologist • Schirmer test and Slit Lamp examination using Fluorescein, Rose Bengal or other staining by ophthalmologist • CBC, ESR/CRP, FBS ($\pm$ HbA1C) ALT/AST, serum BUN/Creatinine, Urinary analysis • RF, FANA, Anti-Ro, Anti-La • Chest X-Ray (posteroanterior) • Sonography of major salivary glands if needed
Step II: • CT scanning or MRI of major salivary glands if needed • Labial gland biopsy (LGB) of minor salivary gland by otolaryngologist (or general surgeon) which must be taken deeply from lower lip mucosa at a paramidline site
Step III: • Plasma IgG4 level and ACE in suspected status • HIV, HBsAg and Anti-HCV checking in suspected status • Biopsy of involved major salivary gland by otolaryngologist

For making an early, accurate cost-effective diagnosis of Sjogren's syndrome; Iran criteria for early diagnosis of Sjogren's syndrome has to be applied and the Rheumatologist must go through the steps of above practical Guideline one by one and if Iran criteria for early diagnosis of Sjogren's syndrome is not yet satisfied in each step, go through the next [2].

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