**Nataliia Zhalivtsiv**

**Oral pathology**

**December 1, 2019**

**Sjögren's** **syndrome**

**Sjögren's** **syndrome** (SS) (pronounced SHOW-grins syndrome) is a chronic autoimmune disease with ocular, oral dryness and a wide spectrum of symptoms leading to psychological distress and reduced quality of life. The disease was first identified in 1933 by a Swedish physician - Henrik Sjögren.

Sjögren’s syndrome is one of the most widespread autoimmune disorders, about 4,000,000 of Americans are affected by this disease. Mostly of them are females (9 of 10) in their late 40s, but this syndrome can be seen in other individuals. The studies showed the mean age of the patients with SS was 51.6 years (range 21-77 years).

When Sjögren’s syndrome occurs alone (half of the times) - it is referred to as “Primary Sjögren’s”, and the other half it occurs in the presence of another connective tissue disease such as rheumatoid arthritis, lupus, or scleroderma and it is referred to as “Secondary Sjögren’s.” Primary Sjögren’s syndrome (pSS) is a chronic inflammatory autoimmune disease that affects the salivary and lacrimal glands, resulting in xerostomia and xerophthalmia.

Sjögren’s syndrome can often be undiagnosed or misdiagnosed. The symptoms of Sjögren’s syndrome such as dry or burning sensation in the eyes, dry mouth, difficulty talking, chewing, or swallowing, a sore or cracked tongue, dry or burning throat, dry, peeling lips, a change in taste or smell, increased dental decay, joint pain, dry nose and fatigue, they can mimic those of menopause, drug side effects, or medical conditions such as lupus, rheumatoid arthritis, fibromyalgia, chronic fatigue syndrome, and multiple sclerosis. Symptoms are not always present at the same time and it is hard to diagnose that a systemic disease is present. The average time from the onset of symptoms to diagnosis is over six years.

To diagnose the disease doctors will do measuring of the unstimulated salivary flow rate, that useful for the assessment of salivary gland involvement, labial salivary gland biopsy, which is the most important test in the assessment of the salivary gland involvement. Ultrasonography imaging also used to help diagnose “Primary Sjögren’s”. Early diagnosis and proper treatment are important helps to prevent serious complications and greatly improve a patient’s quality of life.

” There are several types of elastographic examinations. Acoustic radiation force impulse (ARFI) imaging is an elastography technique that provides an objective numerical evaluation of tissue stiffness differently from the other elastography techniques. It provides an estimate of tissue elasticity by measuring the propagation of shear waves emitted during induced tissue displacement… The benefits and usefulness of ARFI imaging have been shown in many clinical conditions, such as lesion detection and classification” (H. Turnaoglu, 2018).

So, this disease is affecting the whole body and its autoimmune, there is no cause of it, but medications can suppress the symptoms and make patient fill better. Medications such as Steroid, Saliva production stimulator, Nonsteroidal anti-inflammatory drug, and Immunosuppressive drug, Artificial tears and saliva. Some studies were done to determine the effect of oral omega-6 essential fatty acids on PGE1 tear content and signs and symptoms of ocular discomfort in patients with Sjögren’s syndrome (SS). “Several investigators have tried to develop new treatments based on the immunologic pathogenesis of SS. Cyclosporin A improved severe dry eye in dogs, presumably by inhibiting T cells in lacrimal glands. There are many reports that suggest that Epstein-Barr virus (EBV) plays a role in SS… Interferon-a, an inhibitor of EBV, was used to treat dry mouth in SS patients and was found to improve saliva secretion” (Ikuko Toba, p 121).

Sjögren’s syndrome is serious but not fatal disease, patient need to be monitored. This disease related to dental hygiene because of dryness in patients’ mouth, and xerostomia increase caries formation. These patients will need extra care and more recent appointments.

Work cited

1. Aragona, Pasquale, et al. "Systemic omega-6 essential fatty acid treatment and pge1 tear content in Sjogren’s syndrome patients." *Investigative ophthalmology & visual science* 46.12 (2005): 4474-4479.
2. Maddali-Bongi, Susanna, et al. “Mindfulness Program in Sjögren’s Syndrome and Non-Sjögren’s Sicca Syndrome Patients: A Pilot Study on Quality of Life and Psychological Distress.” Alternative & Complementary Therapies, vol. 25, no. 5, Oct. 2019, pp. 241–247. EBSCOhost, doi:10.1089/act.2019.29239.smb.
3. Toda, Ikuko, Naoshi Shinozaki, and Kazuo Tsubota. "Hydroxypropyl methylcellulose for the treatment of severe dry eye associated with Sjogren's syndrome." *Cornea* 15.2 (1996): 120-128.
4. Turnaoglu, Hale, et al. “Diagnostic Value of Acustic Radiation Force Impulse Imaging in the Assessment of Salivary Gland Involvement in Primary Sjögren’s Sydrome.” Medical Ultrasonography, vol. 20, no. 3, Sept. 2018, pp. 313–318. EBSCOhost, doi:10.11152/mu-1397.
5. [www.sjogrens.org/](http://www.sjogrens.org/)