

OBSTETRIC AND GYNECOLOGIC CONSIDERATIONS OF SJOGREN'S SYNDROME

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Introduction

Sjogren's syndrome is an autoimmune disorder demonstrating multi-organ, multi-system involvement. It is a disease affecting predominantly women, most of whom are in their late 30's or older. It has been estimated that there are 1-2 million people in the US with Sjogren's, the majority undiagnosed. With these central facts in mind, it is amazing that there is so little information in medical literature concerning the effects or suspected effects of Sjogren's on the female reproductive tract. Due to the paucity of information, gynecologic problems unrelated to Sjogren's may sometimes be attributed to the disease, and problems potentially related to Sjogren's may be missed. Therefore, we do not know how many Sjogren's patients have unrelated gynecologic problems they attribute to Sjogren's or how many gynecologic problems are related to undiagnosed Sjogren's.

Gynecologic Considerations

Because mucosal dryness is the dominant feature of Sjogren's it seems logical to start with the symptom of vaginal dryness when evaluating the interaction of Sjogren's with the female genital tract. As might be imagined, vaginal dryness is a non-specific problem, which can be caused by a number of events. Vaginal dryness does not usually present to the gynecologist as an isolated symptom but presents as a cause of painful sexual intercourse (dyspareunia). Once the gynecologic evaluation reveals that painful intercourse is caused by vaginal dryness, as opposed to other pelvic pathology such as vaginal infection, a specific cause for the dryness must be sought.

Vaginal dryness is caused by insufficient vaginal lubrication most commonly related to estrogen deficiency, lack of adequate sexual stimulation, or both. Vaginal lubrication is a transudate (passing or oozing) of fluid through the vaginal walls and not specifically related to the production of a gland or series of glands. There is a small contribution made by the Bartholin glands, vestibular glands, Skene's glands, cervical mucus, and exfoliation of vaginal cells, but these contributions are not critical for comfortable sexual functioning. The greatest challenge with vaginal lubrication is in peri- and post-menopausal women. In this group, estrogen deficiency occurs with a concomitant decrease in pelvic blood flow and decreased transudation.

There is also an age-related change in sexual response with the need for increased sexual stimulation over a longer time period to achieve adequate lubrication. If these factors are not appreciated, the entire problem can be blamed on Sjogren's, in spite of the fact that many women with Sjogren's have no evidence of vaginal dryness or problems with sexual function as long as they are not estrogen deficient and their changing sexual needs are met.

Having said this, clinical evaluation shows that there is a subset of Sjogren's patients with vaginal dryness in spite of adequate estrogen replacement and appropriate sexual stimulation. This does not seem to be related to gland involvement inasmuch as the Bartholin, Skene's and vestibular glands remain clinically normal. It may be related to a subclinical vasculitis causing further decrease in vaginal blood flow and decreased

transudation. Fortunately, these particular patients can be helped by non-hormonal vaginal lubricants. The ideal vaginal lubricant should be water soluble, colorless, odorless, non-irritating, and leave no residue. Many options currently exist such as K-Y jelly, Surgilube, Maxilube, Astro-glide, Lubrin vaginal inserts, Replens, and Femi-nease. Both Replens and Femi-nease represent advances in biotechnology by achieving a long-lasting moisturizing effect through either a bio-adhesive or mucoprotective factor activity. Oil based vaginal lubricants such as Vase-line, baby oil, or cocoa butter may lead to maceration (wearing away) of the delicate vaginal lining and should never be used. However, vulvar dryness can be managed by a thin application of a lubricating or moisturizing oil preparation such as vitamin E oil. Vaginal infection, such as yeast infection, should be managed with standard anti-yeast creams such as Monistat cream.

Estrogen Deficiency

As the foregoing discussion indicates, estrogen deficiency and its treatment can be an important factor in the symptomatic management of the Sjogren's patient. There is also an ongoing debate in the medical literature on Sjogren's as to whether estrogen replacement can cause a deterioration or worsening of Sjogren's symptoms.

I believe a number of theoretical and clinical issues bear on this point. First of all, no one knows why there is a strong female predominance in Sjogren's syndrome but there is no direct evidence it is related to the presence of estrogen. It is at least equally likely that the presence of a Y (male) chromosome has some sort of protective effect and points to Sjogren's as a sex-linked immune dysfunction, although this is only speculation at this point. The obstetrical literature shows no consistent pattern of worsening Sjogren's or lupus during pregnancy, a time when estrogen levels are very high. In fact, overall data on connective tissue disorders suggests that a more likely time for a disease flare-up is just after delivery when hormone levels are at a low ebb. Since so many cases of Sjogren's become apparent at or near the menopause when estrogen levels are dropping, one might conclude that estrogen deficiency makes Sjogren's patients more symptomatic.

Finally, I believe that the risk-benefit ratio lies clearly in favor of estrogen replacement when one adds in prevention not only of vaginal dryness but osteoporosis and, to some degree, protection against heart disease. In the last ten years at Scripps Clinic, we have not been able to document any deterioration of Sjogren's patients through the addition of estrogen replacement to their therapy, whereas with improvement of their vaginal symptoms, their quality of life has been demonstrably improved.

Obstetric Considerations

Although many women with Sjogren's syndrome are no longer interested in reproduction, questions do arise concerning Sjogren's syndrome and obstetrical risks. Obstetrical authorities report higher rates of recurrent abortion, fetal death, and congenital heart block in those pregnancies complicated by maternal autoimmune disease. (Congenital heart block is a dysfunction of the rate/rhythm conduction system in the fetal or infant heart leading to an abnormal heart rate or rhythm.) The autoimmune disease most often associated with obstetrical problems is lupus erythematosus. But the relationship of Sjogren's syndrome and lupus may be closer than previously appreciated, particularly when one considers the similarities in autoantibodies, such as antinuclear

antibodies and antibodies against ribonucleoprotein (anti-SS-A or anti-Ro) which have been implicated in congenital heart block and are found in a high percentage of Sjogren's patients (50-70%). Approximately 5% of women with anti-Ro will have an infant with congenital heart block. Also, an anti-SS-A positive patient who has delivered a child with congenital heart block has a greatly increased chance of this problem recurring in subsequent pregnancies. However, the most striking association is between pregnancy loss and the presence of the antiphospholipid antibodies, lupus anticoagulant and anticardiolipin. Both of these autoantibodies have been identified in patients with Systemic Lupus Erythematosus (SLE) and other autoimmune disorders, as well as in patients with no apparent disease.

Because of this, autoantibody screening and appropriate counselling needs to be performed prior to pregnancy, if possible, in all women with Sjogren's or lupus, as well as in women with recurrent spontaneous abortions or a false positive blood test for syphilis. These pregnancies require tertiary obstetrical care, and consultation with an obstetrical specialist or perinatologist is warranted.