A Randomized, Single Center Pilot Study Comparing Hyaluronic Acid to Vaginal Estrogen for Treatment of Genitourinary Syndrome of Menopause

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Background

Topical estrogen therapy is utilized after over-the-counter vaginal moisturizers and lubricants have failed and has been the standard of care for GSM for many years (5). Patient preference, along with instances of medical contraindication, even in topica form, exposes the need-gap to explore non-hormonal alternatives for GSM treatment. HLA’s role as a potential non-hormonal treatment for GSM has recently been identified but needs to be further studied.

Mouse studies on HLA show reversal of atrophy and suggests it has no effect on uterine weight (proxy for endometrial lining), which is a feared complication of systemic estrogen therapy. It is important to explore this extremely prevalent condition.

Study Enrollment

Criteria:

Primary Inclusion Criteria:

1. Postmenopausal status defined as amenorrhea for >21 months or history of bilateral salpingo-oophorectomy or the patient has had a hysterectomy and menopausal symptoms for >1 year of FSH >40
2. Symptoms of GSM
3. Pap smear screening as per ASCCP (American Society for Colposcopy and Cervical Pathology) guidelines. If Pap smear was negative but had been positive in the past 5 years, it must be negative
4. Capable of giving informed consent
5. Ambulatory
6. Capable and willing to follow all study-related procedures

Secondary Inclusion Criteria:

- History of estrogen-sensitive tumor
- Use of any HRT (systemic or local) or raloxifene
- Undiagnosed vaginal bleeding in the past 12 months
- History of thromboembolic event
- Presence of bleeding disorder
- Use of any hormone replacement therapy
- History of liver problem
- History of estrogen-sensitive tumor
- Use of any HRT (systemic or local) or raloxifene
- Ambulatory
- Capable of giving informed consent
- Capable and willing to follow all study-related procedures

Exclusion Criteria:

- Active vaginal infection
- Prior pelvic irradiation
- History of estrogen-sensitive tumor
- Use of any HRT (systemic or local) or raloxifene
- History of liver problem
- History of estrogen-sensitive tumor
- Use of any HRT (systemic or local) or raloxifene

Methods

Study Design: A randomized, controlled, parallel trial

Week 1

Visit 1

Monday: Call #1 Visit

Monday: Call #2 Visit

Visit 2

Monday: Call #3 Visit

Monday: Call #4 Visit

Visit 3

Monday: Call #5 Visit

Monday: Call #6 Visit

Visit 4

Monday: Call #7 Visit

Monday: Call #8 Visit

Visit 5

Monday: Call #9 Visit

Monday: Call #10 Visit

Visit 6

Monday: Call #11 Visit

Monday: Call #12 Visit

Visit 7

Monday: Call #13 Visit

Monday: Call #14 Visit

Visit 8

Monday: Call #15 Visit

Monday: Call #16 Visit

Visit 9

Monday: Call #17 Visit

Monday: Call #18 Visit

Visit 10

Monday: Call #19 Visit

Monday: Call #20 Visit

Visit 11

Monday: Call #21 Visit

Monday: Call #22 Visit

Visit 12

Monday: Call #23 Visit

Monday: Call #24 Visit

Analysis

Primary and secondary outcome measures will be summarized overall, by study group, and for those patients meeting criteria for adverse event reporting.

Discussion

Results for this study are not available, as it is still in the recruitment phase. However, the implications the results could have on advocating for menopausal and post-menopausal health are significant. If it is found that HLA is equally efficacious in improving GSM symptoms in comparison to vaginal estrogen therapy, it could receive FDA approval as a non-hormonal alternative form of treatment for GSM. This ultimately has the ability to increase patient autonomy and improve post-menopausal health care.

Bibliography

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Limitations

- Sample Size
  - n=40 post-menopausal women who met inclusion criteria
- Study only included english-speaking patients
  - Excludes major population of post-menopausal women who suffer from GSM symptoms
- Study conducted in a single center setting
  - Limitations on diversity of patient population and external validity

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Introduction

Genitourinary syndrome of menopause (GSM) is a chronic condition resulting from a decrease in estrogen (1). It yields an array of vulvovaginal and urinary signs and symptoms in menopausal women including dryness, dyspareunia, burning and urinary incontinence (2). These symptoms are extremely prevalent amongst menopausal women and 85% of women over the age of 40 suffer from vaginal dryness (Figure 1)(3). Over 50% of women and 85% of women over the age of 40 suffer from these symptoms report that they negatively affect their quality of life (4). Topical estrogen therapy has been the gold standard treatment for GSM, as it replaces depleted estrogen in post-menopausal women and yields an array of vulvovaginal and urinary signs and symptoms in menopausal women including dryness, dyspareunia, burning and urinary incontinence (2). These symptoms result from a decrease in estrogen (1). It is important to explore for this extremely prevalent patient preference, non-hormonal alternatives are needed that can improve physical attributes of GSM.