# Lotions, Potions & Lasers

Newest Innovations for Vaginal Atrophy and Painful Intercourse

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#### I Have Just One More Problem Doc

© 62 Year-old female in for her yearly physical with her Primary Care Provider. Menopause was at age 51. Breast cancer survivor for 6 years now. You renew her cholesterol medication and antihypertensive. Routine lab work normal and vital signs normal.

### Overview

- Vulvovaginal Atrophy
  - > What is it?
  - > What causes it?
  - > What to do about it?

#### Vaginal Atrophy

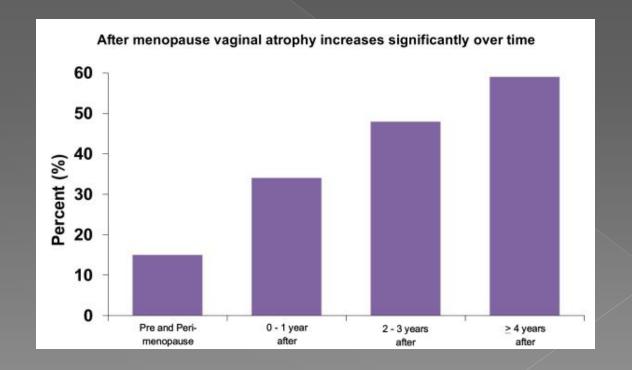
 Vaginal Atrophy, sometimes called atrophic vaginitis (AV), vulvovaginal atrophy (VVA) is a common condition affecting millions of women in the U.S. The symptoms include chronic vaginal dryness, painful vaginal burning, vaginal irritation, urinary urgency and urinary frequency

### Etiology

- Menopause
- Oophorectomy
- Postpartum
- Breastfeeding
- Radiation, chemotherapy
- GnRH analog
- Anticholinergic, antihistamine
- Smoking
- Chemical sensitivities

#### Incidence

- 15% of premenopausal women
- 10-60% of postmenopausal women
- 10-25% of women on systemic HRT

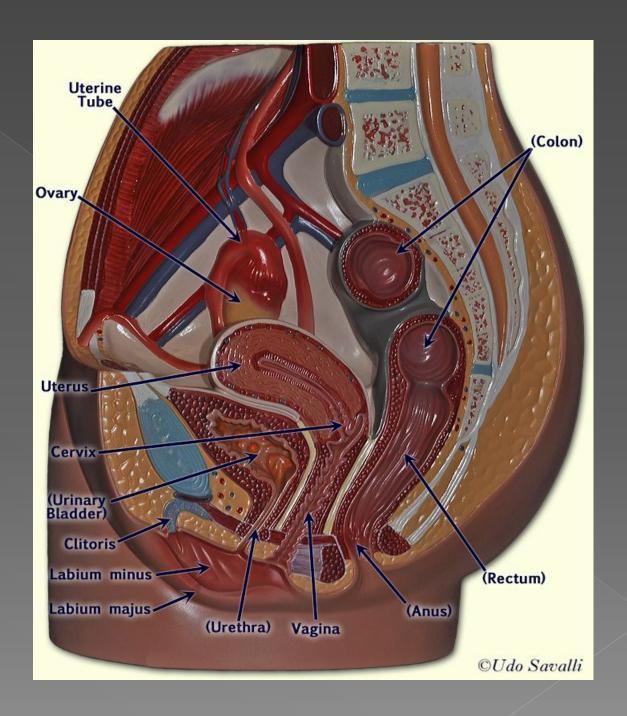


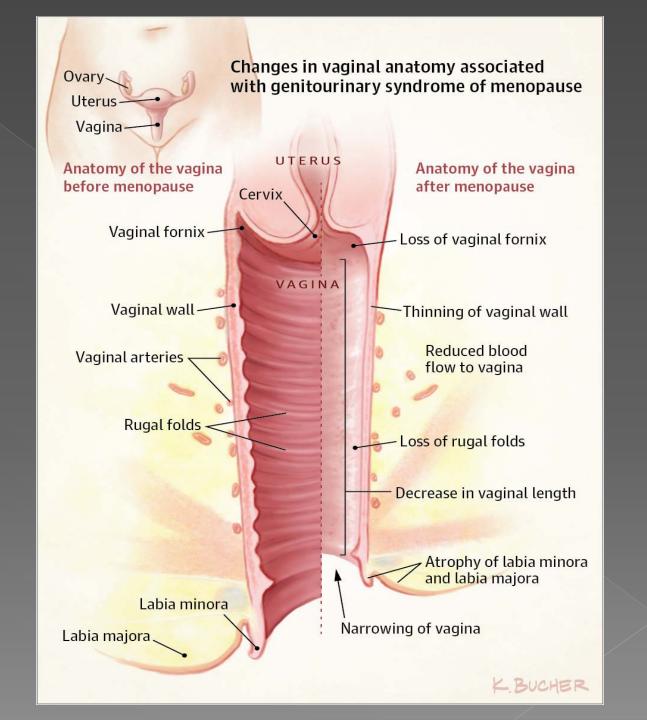
#### Incidence

- Unlike vasomotor symptoms of menopause which regress over time, vaginal atrophy is progressive and may worsen without treatment.
- Difficulty with intercourse in 45% of **postpartum** women. Vaginal dryness reported in 71% of **breastfeeding** women.

## Symptoms- "It feels like sandpaper down there!"

- Oyspareunia
- Burning/irritation
- Soreness
- Spotting
- Urinary symptoms- frequency, recurrent UTIs, incontinence.





## Histology

- Epithelium is highly folded
- Vaginal epithelial layer
  - > Superficial
  - > Intermediate
  - > Parabasal Cells
- With estrogen contribution, all layers are thickened as a result of glycogen stores.
- The superficial cell continually exfoliate and the parabasal cells replace them from the bottom up.

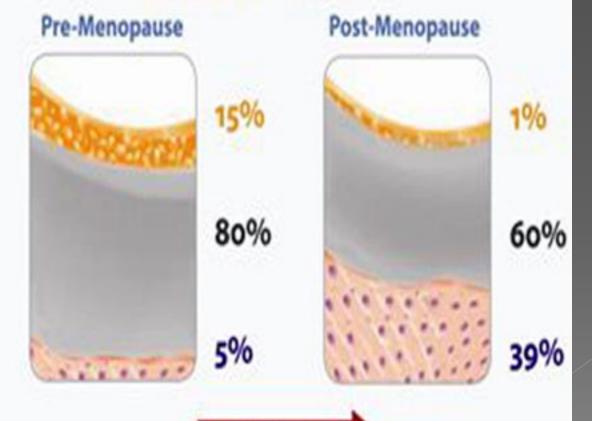
#### What is vaginal atrophy?



Superficial cells

Intermediate cells

Parabasal cells



**MENOPAUSE** 

#### Physiology

- Premenopausal vaginal pH is 3.5-4.5.
- This acidic pH discourages growth of pathogenic bacteria.
- Low pH is maintained by glycogen.
- Glycogen is converted to lactic acid by the normal vaginal flora.
- No glands, lubrication is provided by fluid transudate

#### Pathophysiology

- With estrogen loss, the tissue becomes thin, pale and loses the rugae.
- Lubrication declines and pH rises.
- Supportive tissue under bladder and urethra becomes atrophic leading to urinary frequency and incontinence.

## Treatments

#### Lubricants

#### Water based

- > Provides symptomatic relief during intercourse for most women.
- > Does not treat the underlying cause. Complaints of viscosity and difficult to administer, need to reapply.

#### Silicone based

- > Has been shown to improve vaginal moisture, fluid volume, lower pH and increases elasticity.
- May not need to reapply as frequently as water based.

#### Lubricants

- Oil based
  - > Olive oil, coconut oil, etc
- Vaginal moisturizers
  - Contain bioadhesives that adhere to cells and provide moisture for up to 3 days
- Prebiotics
  - Maintain increased moisture by renewing/maintaining proper pH



#### Systemic Hormones

- Tablet, transdermal, IM, etc.
- May be able to treat several symptoms of menopause as well as atrophy.
- Need to add progestin if patient has a uterus.
- May not adequately treat atrophy, but can add a vaginal estrogen with it.
- Don't use if history of breast cancer, thromboembolic disease, liver disease, uncontrolled HTN, etc

#### Vaginal Estrogen

- Cream (estradiol or conjugated estrogens)
  - > Usually administered twice weekly.
  - > Should be administered 12 hours before intercourse to avoid transmission to partner.
  - Contraindicated in women taking an aromatase inhibitor.
  - > Usually avoided in women with a history of breast cancer.
  - > Small amount of systemic absorption

### Vaginal Estrogen

- Dissolvable tablets (estradiol 10 mcg)
  - > Comes in an easy to insert applicator
  - > Some women prefer as it is "less messy"
  - > Less "moisture" than creams
  - > May not provide as much estrogen to the vulva
  - Usually avoided in women with a history of breast cancer
  - Small amount of systemic absorption

## Vaginal Estrogen

- 17β-estradiol 2 mg vaginal ring
  - Insert one ring every 3 months; releases 7.5 μg estradiol per day.
  - > May have intercourse with ring in place.
  - > Some women find it acts like a small pessary and helps with prolapse as well.
  - > Can become dislodged. May be difficult to remove or insert.
  - > Avoid in women with a history of breast cancer.
  - Not to be confused with **estradiol acetate** ring that releases 0.05 or 0.10 mg/d which is intended as a systemic HRT.

#### In 2013...



The 'Pink Viagra" for Women!

Dr. Oz has breaking health news especially for women and it could be the secret to saving your love life!"

#### Ospemifene

- Selective Estrogen Receptor Modulator (SERM)
  - > Unique positive effects on vaginal tissue
- Estrogen agonist/antagonist. Binds to estrogen receptors.
- Makes vaginal tissue thicker and less fragile resulting in a reduction in the amount of pain women experience with intercourse.
- Do not use with estrogen as it competes for the same receptor.
- 60 mg oral pill taken daily.

#### Safety Information

- Ospemifene binds to estrogen receptors so the safety prescribing information lists same risks as systemic HRT although this has not been proven in the literature.
- Common side effects can include hot flashes, vaginal discharge, muscle spasms and increased sweating.
- Do not use with long-term use of fluconazole or rifampin as they may increase plasma concentration of ospemifene.

## Fractional CO2 Laser

- What Our Patients Are
  - > Seeing
  - > Reading
  - > Hearing
- "The Game Changer"





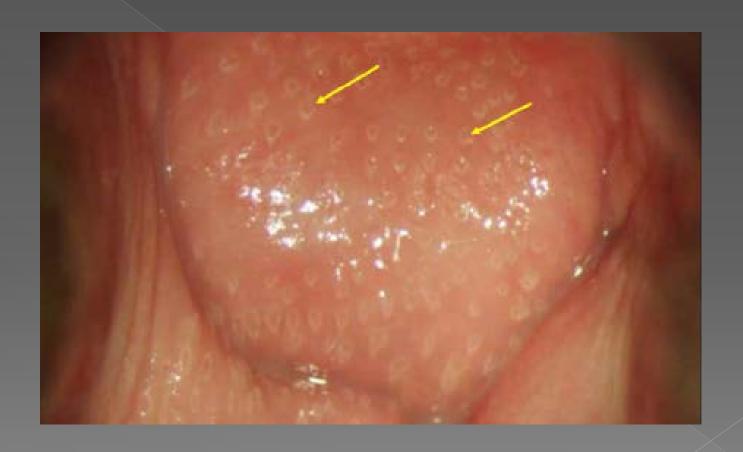




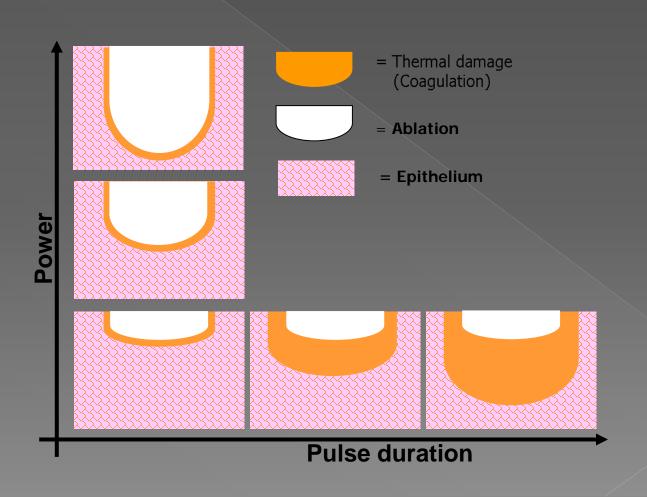
#### Fractional CO2 Laser

- Promotes the formation of collagen, elastin and revascularization.
- Treatments last 5-10 minutes and are relatively painless.
- 3 successive treatments 6 weeks apart that create thermal injury to this epithelium.
- After initial course of treatment, a yearly maintenance treatment is usually recommended\*

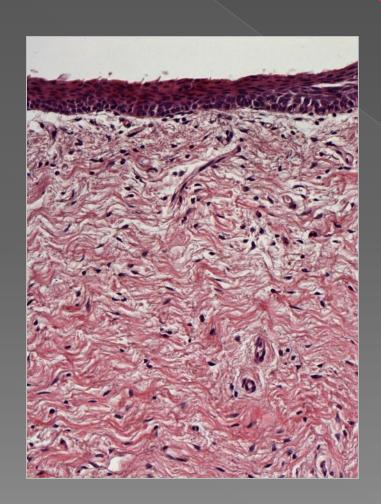
## Colposcopic view of the vaginal tissue after treatment

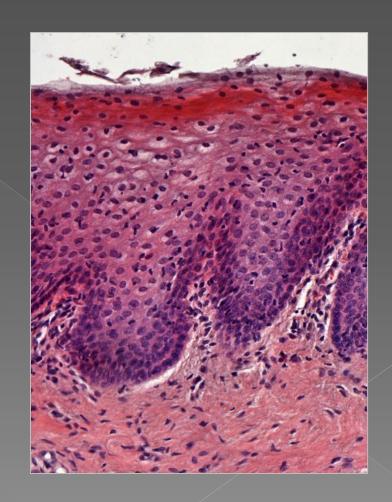


## Variable settings to control the depth of penetration and lateral coagulation



# Promotes collagen formation, remodeling, angiogenesis, production of glycogen





#### Contraindications

- Vaginal, cervical lesions that have not been evaluated or diagnosed
- Active vaginal or vulvar infection
- Pregnant or within 3 months postpartum
- Prolapse beyond hymen
- History of radiation to vaginal/colo-rectal tissue
- History of reconstructive pelvic surgery with "mesh kits"
- History of impaired wound healing
- History of keloid formation
- Known anticoagulation treatment or thromboembolic condition

### Treatment Details

- Nothing in the vagina for 2 days prior to treatment and for 5 days following treatment.
- "Feels like a sunburn"
- 40% improvement after 1 treatment, but performed in a series of 3 to reach desired effect.
- May be used in conjunction with hormones if desired.
- Usually performed by a gynecologist or urologist.

## Thank You!!



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