

Botanicals for Common Infections in Women

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To Be Discussed

- Yeast vaginitis
- Bacterial vaginosis
- Cystitis
- HPV
- Genital herpes

Garlic/thyme cream for YVV

N= 64; ages 30-37

- 32 women = vaginal cream containing garlic and thyme or 32 women = vaginal cream with clotrimazole cream for 7 nights.
- The therapeutic response was considered successful if there was an absence of *Candida* hyphae microscopically and a negative culture for *Candida*.
- The authors report significant improvement in clinical symptoms in both groups after treatment ($P < 0.05$). The garlic/thyme group reported a greater decrease in vulva erythema compared with the clotrimazole group ($P = 0.02$). No worsening of symptoms was reported in either group.
- Of the adverse side effects reported, "other side effects" were seen in 9.4% of the clotrimazole group and in 34.4% of the garlic/thyme group.

Iran J Nurs Midwifery Res. December 2010;15(suppl 1):343-349.

Yeast Vaginitis - Additional vaginal agents

- Berberine (goldenseal, oregon grape) - in vitro antifungal; candida albicans.
- Calendula - historical use as a local/topical remedy for local infections, wounds, injuries.
- Garlic - in vitro inhibitor of candida albicans.
- Tea tree - in vitro; inhibitor of candida albicans.
- Homeopathics (OTC criteria) – Borax, Hydrastis, Berberis, Kreosotum, others.
- Povidine iodine - paint cervix and vagina with solution on day one. Applicator gel (5gm) bedtime, douche next morning using 2T/1qt water bid x 6.

Lactobacillus species/strains antipathogen properties

- L rhamnosus GG
- L acidophilus NCFM
- L casei Shirota
- L. reuteri MM 53
- L. casei CRL-431
- L. rhamnosus GR-1
- L fermentum RC-14

Others to consider:

- L plantarum 299V
- L salivarius

Candida Vaginitis

Sample Treatment Plan

- **Acute**
 - Boric acid suppositories bid X 3-7 days
 - Yogurt 8oz daily and/or Lactobacillus species/strains combinations for 2 weeks
- **Chronic**
 - Boric acid suppositories bid x 2-4 wks; then prophylactic plan
 - Yogurt 8oz daily and/or Lactobacillus species/strains combinations for 2-6 mo.
 - Consider systemic: Garlic, Oregon grape, Goldenseal

Bacterial Vaginosis

- Allium sativum (Garlic)
 - Effective against some antibiotic resistant organisms
 - Allicin: growth – inhibitory constituent

Bacterial Vaginosis – Additional Botanicals

- Contain berberine: antibacterial; specific for mucosal surfaces
 - Goldenseal (*Hydrastic canadensis*)
 - Oregon grape (*Berberis vulgaris*)
- Tea tree (*Malaleuca alternifolia*)
 - antibacterial and antifungal
 - daily douching effective in candidiasis, trichomoniasis and cervicitis

BV and Vitamin C

- 250 mg vitamin C vaginally for six days

	<u>Vit C</u>	<u>placebo</u>
• No clue cells	79%	53%
• No bacteria	77%	54%
• L. reappeared	79.1%	53.3%
• pH > <u>4.7</u>	16.3%	38.6%
• BV persisted	14%	35.7%

Eur J Ob/GYN 2004

Bacterial Vaginosis

Other agents:

- Topical 5% aqueous propolis solution
- Topical Povidone-iodine
- Ascorbic acid suppositories
- Additional agents - Homeopathics:
 - Borax, Hydrastis Canadensis, Kreosotum, Sepia, Calcarea Carbonicum, Nitric acidum, Carbolic acidum

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Bacterial Vaginosis

Sample Treatment Plan

Option A

- Vitamin C tablet x 6 days then
- Boric acid supp 1/day x 1 week
- Lactobacillus species/strains x 4 weeks
- Systemic immune support:
 - Oregon grape, Goldenseal; 1 tsp bid

Bacterial Vaginosis

Sample Treatment Plan

Option B

- Metronidazole gel - 1 gm bid x 5-10 days
- Concurrent oral lactobacillus species/strains 8+billion or more daily for 2-4 weeks
- Follow metronidazole with lactobacillus suppositories 1x/day for 7-14 days plus boric acid supp 1/day for 7-14 days
- Systemic immune support = Oregon grape, garlic, goldenseal
- Immune supportive diet

UTI: Cranberry

- 20 adults who did not have an active urinary tract infection, and were not taking antibiotics.
- In phase 1: 3 caps that contained 275 mg of a mixture of dried whole cranberry extract and 25 mg of a concentrate of cranberry extract.
- In phase 2: no cranberry on day 1 and 900 mg of cranberry preparation on day two.
- Results: In phase 1, 7 of 20 (35%) individuals had anti-microbial activity against *Escherichia coli*, 13 of 20 (65%) had anti-microbial activity against *Klebsiella pneumoniae*, and 9 of 20 (45%) against *Candida albicans*.
- In phase 2, 23% showed antimicrobial activity against *E. coli*, 33% against *C. albicans*, and 67% against *K. pneumoniae*.

eCAM 2010;7(2):227-232 doi:10.1093/ecam/nem183

UTI: Cranberry

- 10 Greek postmenopausal women who had at least 3 documented urinary tract infections (UTIs) in the previous year or at least 2 UTIs in the last 6 months prior to the start of the study.
- 400 mg of cranberry extract twice per day over 6 months.
- While taking the cranberry extract, none of the women had a UTI over the course of the 6 months and almost all of the urine cultures were sterile (normal). Three women reported mild gastrointestinal problems and their dose was reduced to 2 capsules per day and as a result, their gastrointestinal problems subsided.



J Altern Complement Med 2009;15(11):1155.

UTI: Uva ursi

- *Arctostaphylos uva ursi*
- Constituents:
 - Arbutin
- Action:
 - Antiseptic; most effective in alkaline environment
- Dose:
 - Freeze-dried leaves = 500-1000 mg per day
 - Tincture = 1-1.5 tsp tid
 - CI during pregnancy



UTI: Uva ursi

- Also contains:
 - methylarbutin
 - tannins
 - ursolic acid (diuretic)
 - phenolic acid
 - resins
 - flavonoids(quercitin and Isoquercitin)

UTI: Goldenseal

- *Hydrastis canadensis*
- Constituent:
 - Berberine
- Action:
 - Antibacterial
 - Inhibits bacteria from adhering
- Dose:
 - Freeze-dried = 500-1000 mg tid
 - Tincture = 1-1/2 tsp tid



UTI: Oregon Grape

- Berberis aquifolium
- Constituent:
 - Berberine
- Action:
 - Antibacterial
 - Inhibits bacteria from adhering



UTI: Pipsissewa

- Chimaphila umbellata
- Constituents:
 - Arbutin
- Action:
 - Antiseptic
 - Antibacterial
 - Astringent
 - Alterative
 - Diuretic

UTI: Marshmallow

- *Althaea officinalis*
- Constituents:
 - Mucilage
- Action:
 - Protective layer



UTI: Buchu

- Barosma betulina
- Constituents:
 - Flavonoids
 - Mucilageous constituents
- Action:
 - Diuretic; protective layer
- Dose:
 - 500-1000 mg tid
 - tincture 1 ½ tsp tid

Cystitis: Sample Treatment Plan - Acute

- Increase water (8 or more glasses daily)
- Increase cranberry juice (16 oz daily)
- Vitamin C (2,000 mg every 2 hours for 2 days, then 2 grams tid for one week)
- Botanicals: cranberry, goldenseal, Oregon grape root, buchu, uva ursi, pipsissewa (every 2 hours for 2 days, then 2 doses tid for one week)
 - Formula, singles or similar formula

Cystitis: Sample Treatment Plan

Chronic recurring

- Void upon urge, after intercourse
- Condoms if intercourse
- Staphysagria after intercourse
- Increase fluids
- Cranberry extract 400 mg bid
- Mannose powder 1 tsp/day
- Probiotics—8+ billion daily; urogenital specific species (consider intravaginal lactobacillus spp)

HPV Treatment

- Treating HPV-infected cells may help boost immunity by destroying the cells within which the HPV resides, thereby releasing HPV to disease-fighting dendritic cells and macrophages.

Naturopathic Treatment

- Smoking cessation
- Safe sex practice education
- Support the immune system
- Treat HPV
- Treat the dysplasia

Three Month Oral Protocol

- Botanical Protocol 1
 - Red clover
 - Dandelion root
 - Licorice root
 - Goldenseal root
- Botanical Protocol 2
 - Thuja
 - Echinacea
 - Goldenseal root
 - Ligusticum

Cervical Dysplasia Research

- Green tea
- Coriolus versicolor
- I3C/DIM

Cervical Dysplasia - Green Tea Vaginal and Oral

- 51 patients with cervicitis to CIN 2 divided into 4 groups and compared to 39 controls.
 - 20/27 using poly E ointment vaginally 2x/week
 - 6/8 poly E plus poly E capsule
 - 3/6 poly E capsule
 - 6/10 EGCG capsule
- Overall: 69% response rate 35/51 with green tea extract vs 10 % response rate 4/39 in controls ($P < 0.05$).



Eur j cancer prev 2003;12(5):383-390

Green Tea

- ECGC in green tea was evaluated on cervical epithelial; cells and cervical cancer cells and HPV.
- Both ECGC and polyphenols E inhibited immortalized cervical epithelial and cancer cell growth.
- Green tea induced apoptosis, decreased gene expression, and cell cycle changes.

Green tea ointment and anogenital warts

- RCT
- Sinecatechins ointment 15% or 10% or placebo three times daily for a maximum of 16 weeks or until complete clearance of all warts, followed by a 12 week tx free f/u to assess recurrence.

Tatti S, et al. Ob and Gyn2008;111(6):1371

Green tea and warts

- Two phase III trials evaluated treatment of EGWs with ointment containing a mixture of green tea catechins (Polyphenon E), U.S. adopted name: sinecatechins.
- Men and women aged > 18 years with two to 30 EGWs applied vehicle Polyphenon E ointment 10% or Polyphenon E ointment 15% three times daily until complete clearance of all EGWs (baseline + new EGWs) or for a maximum of 16 weeks.
- 838 completed treatment after 16 weeks.

Green Tea and warts con't

- Complete clearance of all EGWs was obtained in 53.6% (10% ointment) and 54.9% (15% ointment) of patients with Polyphenon E vs. vehicle.
- Statistically significant differences in clearance rates appeared after 6 weeks of active treatment.
- Only a 55 recurrence rate.

Additional Anti-viral herbs

HPV and CIN

- Consider; Mahonia, licorice, thuja, melissa, hypericum, echinacea



Coriolus versicolor

- 39 patients with biopsy confirmed LSIL
- 21 were controlled
- 18 took coriolus 3grams/day for 1yr
- 72.5% of the 18 patients who took coriolus showed normal cervical cytology
- 90% of patients with HPV+ high risk and took coriolus reverted to HPV negative

Indole-3-carbinol

- 30 patients with CIN II-III
- 17 took I-3-C 400mg for 12 weeks (13 placebo group)
- 8 of the 17 had complete regression
- I-3-C up-regulates tumor suppressor gene PTEN which is MOA for inhibiting development of cervical cancer.

Original research results for treating ASCUS, CIN, CIS

- 43 cases, including cervical atypia (n=7), cervical dysplasia (n=26), and carcinoma in situ (n=10)
- 43 patients:
 - 38 = normal
 - 3 = partial improvements
 - 2 = no change
 - 0 = no one worse

Genital Herpes

Natural Treatment Interventions

- Considerations
 - Host health
 - Prevention of recurrences
 - Immune support
 - Reduce triggers
 - Mucosal immunity
 - Anti-viral therapies

Botanicals - Topical Lemon Balm

- Recurrent Oral; n=66
- 10% S.E. lemon balm vs placebo qid x 5 d
- Applied cream no more than 4 hours after onset of prodrome.
- Results: day 2 = reduction in severity and number of eruptions with lemon balm.
- Total score over 5 days = no difference.

(Koytchev et al)

Larrea Tridentata

- Larrea leaf resin inhibits HSV-2 replication
 - NDGA (nordihydroguaiaretic acid)
 - mal.4
- Acts to inhibit the activity of a gene promotor that is important for viral replication
- Use: Leaf resin capsules 1-2 daily; topical Larrea lotion

Propolis vs. Acyclovir for Genital Herpes

- N=46 men and 44 women, 18–69 y.o.
- Recurrent chronic genital HSV type 2
- Tx: 3% propolis ointment
5% Acyclovir ointment
Placebo
qid for 10 days

Phytomedicine 2000;7(1)

Propolis vs. Acyclovir for Genital Herpes

<u>Day</u>	<u>Propolis</u>	<u>Acyclovir</u>	<u>Placebo</u>
3 (crusts)	50%	27%	0%
7 (Ulcers/ Healed)	55%	26%	30%
10 (ulcers/ Healed)	100%	80%	70%

Dr. Hudson Resources

- Women's Encyclopedia of Natural Medicine; 2nd Edition 2008; Hudson; McGraw-Hill
- www.drtorihudson.com
- www.instituteofwomenshealth.com
- www.awomanstime.com
- womanstime@aol.com

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