Cernitin Pollen Extract (Cernilton)

James Meschino DC, MS, ROHP

General Features

Cernilton is a flower (graminaceae) pollen extract (rye-grass pollen extract) that has been used in Europe to treat non-bacterial prostatitis and benign prostatic hyperplasia (BPF) for more than thirty-five years.[1] It is a registered pharmaceutical product throughout Western Europe, Japan, Korea, and Argentina.[2] Cernilton is documented to provide anti-inflammatory and anti-congestive effects, which have made it a useful treatment for the aforementioned prostate conditions.[3] Cernilton also has been shown to decrease resistance of the prostatic urethra (relaxes the muscles that surround the urethra), improve detrusor activity, and suppresses prostate cell growth.[4,5,6,7]

Principle Active Constituents

Proprietary rye-grass pollen extract (Cernilton), contains hydroxamic acid. Hydroxamic acid has been shown to inhibit the growth of a common human prostate cancer cell line, in vitro.[10]

Clinical Application and Mechanism of Action

Benign Prostatic Hyperplasia (BPH) and Non Bacterial Prostatitis

Results of clinical studies using Cernilton demonstrate a marked reduction in residual urine volume, prostate volume and substantial improvement in urinary flow rate in patients with BPH. Enlargement and congestion of the prostate gland are the principal factors responsible for the urinary obstruction symptoms in BPH.

The anticongestive action of Cernilton is based on the inhibition of prostaglandin and leukotrienes biosynthesis. It specifically inhibits the 5-lipoxygenase and cyclo-oxygenase enzymes, inhibiting the arachidonic cascade from converting arachidonic acid to inflammatory prostaglandin and leukotriene hormones at a local tissue level. In turn, this helps to reverse or prevent intraprostatic tissue edema and fibrosis.[8]

The overall success rate of Cernilton in patients with BPH is reported to be approximately seventy percent.[9]

A systematic review of Cernilton for the treatment of benign prostatic hyperplasia concludes "the available evidence suggests that Cernilton is well-tolerated and modestly improves overall urological symptoms, including nocturia. Additional randomized placebo and active-controlled trials are needed to evaluate the long-term clinical effectiveness and safety of Cernilton .[2]

In general, well-documented evidence from double-blind, placebo-controlled, randomized studies demonstrate that cernitin pollen extract can be a useful phytotherapy treatment for these prostate conditions, especially in the reduction of tissue edema and swelling. [1,2,3,4,5,6,7,8,9]

Dosage

BPH and Non Bacterial Prostatitis - a typical dosage is 63 mg, twice daily of cernitin pollen extract.[1]

Adverse Side Effects and Toxicity

Cernitin pollen extract is well-tolerated and very non-toxic at recommended intake levels. In a major systematic review regarding the clinical efficacy of Cernilton pollen extract, only one patient reported an adverse side effect from it use.[2]

Drug-Nutrient Interactions

No drug-nutrient interactions for cernitin pollen extract are known at this time.[2]

NB: In Germany, phytotherapy is the primary treatment for mild to moderate urinary obstructive symptoms and represents more than 90 percent of all pharmaceuticals prescribed for the treatment of Benign Prostatic Hyperplasia.[2]

A partial list of widely used Phytonutrients for Benign Prostatic Hyperplasia includes:

- Saw Palmetto
- Pygeum Africanum
- Beta-sitosterol
- Urtica dioica (stinging nettle)
- Cernitin pollen extract

Pregnancy and Lactation

During pregnancy and lactation, the only supplements that are considered safe include standard prenatal vitamin and mineral supplements. All other supplements or dose alterations may pose a threat to the developing fetus and there is generally insufficient evidence at this time to determine an absolute level of safety for most dietary supplements other than a prenatal supplement. Any supplementation practices beyond a prenatal supplement should involve the cooperation of the attending physician (e.g., magnesium and the treatment of preeclampsia.)

References: Pregnancy and Lactation

1. *Encyclopedia of Nutritional Supplements. Murray M. Prima Publishing 1998.*
2. *Reavley NM. The New Encyclopedia of Vitamins, Minerals, Supplements, and Herbs. Evans and Company Inc. 1998.*
3. *The Healing Power of Herbs (2nd edition). Murray M. Prima Publishing 1995.*
4. *Boon H and Smith M. Health Care Professional Training Program in Complementary Medicine. Institute of Applied Complementary Medicine Inc. 1997.*

---

1. Yasumoto R, et.al., Clinical Evaluation of Long-term Treatment Using Cernitin Pollen Extract in Patients with Benign Prostatic Hyperplasia, Clinical Therapeutics, 17, 1995, 82-86.
2. MacDonald R, et.al., A Systematic Review of Cernilton for the Treatment of Benign Prostatic Hyperplasia, Br J Urol International, 85, 1999, 836-841.
3. Ito R, et.al., Anti-inflammatory Effects of Cernitin Pollen Extract (Cernilton), Pharmacometrics, 28, 1984, 55-65.
4. Nakaari K, et.al., Effect of the Prostatic Extract (Robaveron) on Bladder Function: An Experimental Study, Acta Urol Jpn, 18, 1972, 501-515.
5. Kimura M, et.al., Micturition Activity of Pollen Extract: Contractile Effects on Bladder and Inhibitory Effects on Urethral Smooth Muscle of Mouse and Pig, Planta Med., 2, 1986, 148-151.
6. Habib FK, et.al., In Vitro Evaluation of the Pollen Extract, Cernitin T-60, in the Regulation of Prostate Cell Growth, Br J Urol, 66, 1990, 393-397.
7. Ito R, et.al., Anti-prostatic Hypertrophic Action of Cernitin Pollen Extract (Cernilton), Pharmacometrics, 31, 1986, 1-11.
8. Dutkiewicz S, Usefulness of Cernilton in the Treatment of Benign Prostatic Hyperplasia, International Urol and Nephrol, 28, 1996, 49-53.

9. Buck AC, et.al., Treatment of Outflow Tract Obstruction Ode to Benign Prostatic Hyperplasia with the Pollen Extract, Cernilton : A Double-blind, Placebo-controlled Study, Br J Urol, 66, 4, 1990, 398-404.
10. Habib ZX, et al. Isolation and characteristics of a cyclic hydroxamic acid from a pollen extract, which inhibits cancerous cell growth in vitro. J Med Chem.1994; 38 (4): 735-8