

Herpes Zoster – a Treatment Concept with Ozone

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Abstract

The trigger of the *zoster* or shingles condition is the *varicella zoster* virus. It manifests itself as a local recurrence through a weakened immune condition, mainly arising during childhood.

Depending on the degree of immune weakness, it can spread from one to several segments (*i.e.*, *zoster generalisatus*).

The duration of healing, severity of disease, and post-*zoster* neuralgia also depend on the immune condition prevailing.

Older patients often indicate an immune weakness. This is why *zoster* illness with the complications mentioned above occur frequently in their case.

Zoster is normally treated with viralstatic agents as the preferred method. In comparison to viralstatic agents, ozone therapy also shows good results. Yet it shows the comparative advantage of an immune system regulating or stimulating effect. Furthermore, it can already be used at an early stage in case of slight diagnostic suspicion, since – in contrast to viralstatic agents - practically no side effects are anticipated. Normally ozone therapy is more economical than treatment with viralstatic agents. Beginning treatment early improves the chances of avoiding the dreaded *post-zoster neuralgia*.

Zoster patients in the pilot study were treated with ozone systematically as well as locally. In case of strong neuralgia, the related *ganglia* were injected with local anesthesia and ozone at the same time.

Enzymes, zinc, and vitamins E, C, B₁, B₆, and B₁₂ were administered as added measures.

Keywords: Ozonotherapy, Herpes zoster, Medical ozone.

Introduction

Zoster is a relapse of the original infection, chicken-pox, during childhood. The trigger is the chicken-pox-*zoster* virus belonging to the *Herpes viridae* family. It promptly loses its infectious nature outside the body. Highly contagious, chicken-pox, are transmitted by airborne droplets through breathing and coughing as well as via the content of small blisters and crusts.

The chicken-pox-*zoster* virus persists in spinal ganglion and leads to *zoster* disease when reactivated. It shows itself by unilateral blisters within a dermatome connected to intense pains. Usually the Th3 to L3 dermatome are affected. Intensive neuralgic pains frequently

appear just before the blisters show up. These may latent for a long time as post-*zosteroid* neuralgia. The probability of developing chronic post-*zosteroid* neuralgia increases with age.

Zoster disease usually occurs among those with immune-system weaknesses and the elderly. The disease's peak manifests itself between the 60th and 70th years of life. A weakened immune system plays an essential role in emergency of *zoster* disease. It indicates itself in:

- **Older people;**
- **Patients who were treated with immune suppressants;**
- **People with immune-system defects such as AIDS**
- **After intense infections that reduce immunocompetence.**

The most common sites are:	thorax segments	48%
	cervical segments	18%
	trigeminal nerve	15%
	lumbosacral segments	8%

The usual therapy consists of viralstatic agents such as Aciclovir, Famciclovir, or Valaciclovir.

Materials and Methods

Selection of Patients

The study included 113 patients of both genders between ages 55 and 75. Diseases were noted in the personal histories that suggested a reduced immune system. Considerations included previous health disturbances within a timeframe of eight weeks and immunosuppressive treatment of up to two years before the onset of *zoster* disease.

The study extended to patients with thorax and upper lumbar *zoster* segments.

Therapy Applied

Treatment began immediately after determining a diagnosis or suspected diagnoses. Since the therapy is practically free of side effects, one could start treatment early, even on the basis of a suspected diagnosis. Therapy was already introduced at the first signs of segmental neuralgia *sine herpete*. It was shown that the earlier treatment was applied, the less frequently and less intensively post-herpetic neuralgia appeared.

The major ozone autohemotherapy was carried out seven times, daily at the outset, later three times weekly, up to 10 times in total. The dosage amounted to 3,000 µgr. Since older patients were involved who were given ozone therapy for the first time, one began with a total dose of 1,000 µgr.

Additionally one began with neural therapeutic injections at the corresponding dorsal ganglia without waiting for signs of efflorescence followed by injecting 20 µgr. of ozone¹ with the

¹ The ozone as a local disinfection against virus attacks the "virion capsid". So the virion cannot attach to the cell-wall.

same needle. Depending on segmental extension, 5-15 ccm of 1% procaine, 2-5 ccm per injection site was used as well as 2-5 ccm per 20 µgr of ozone per injection site. Ozonized olive oil¹ was applied twice daily at the slightest sign of a rash after cleaning the skin with alcohol. It was then covered with Tegaderm foil. If greater efflorescence appeared in combination with substantial pains, compresses with cooled ozonized¹ water were used frequently.

All patients were injected with zinc², vitamins³ B₁, B₆, and B₁₂ during the entire ozone therapy, and vitamin C as well as E⁴ was prescribed.

Results

The study included 103 patients. Ages ranged between 56 and 75.

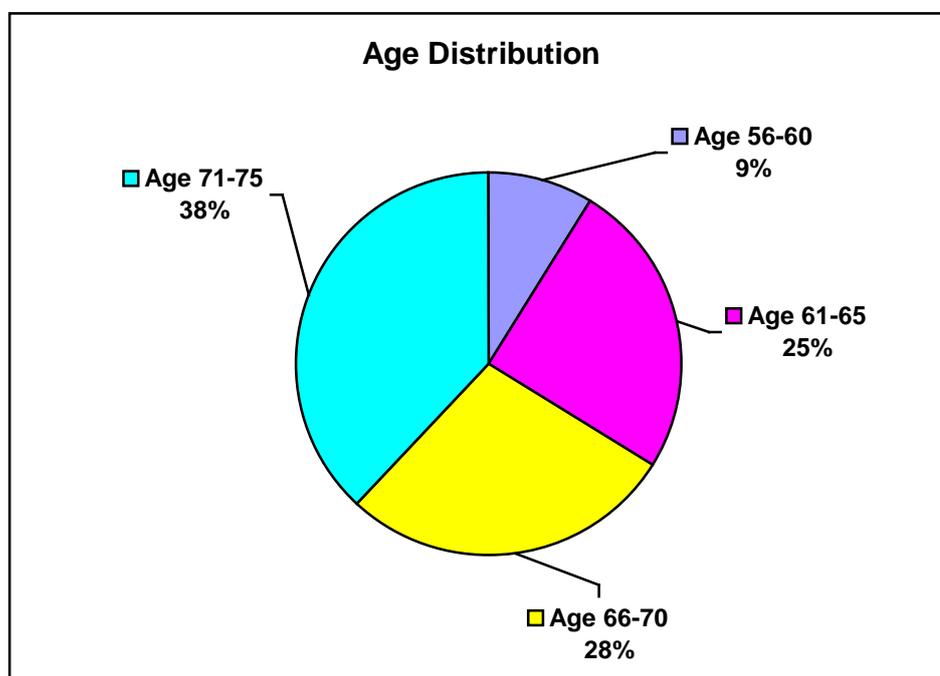


Figure 1: Age distribution

Case history indications of a weakened immune system were found in most patients. These included increased colds, relapsing aphthae, after treatment with immuno-suppressant medicines, and recently experienced emotional and/or physical distress.

The duration of healing amounted to one to two weeks. This period corresponds to the usual healing period when treated with viralstatic agents.

¹ The ozone as local disinfection against virus attacks the "virion capsid". So the virion cannot attach to the cell-wall.

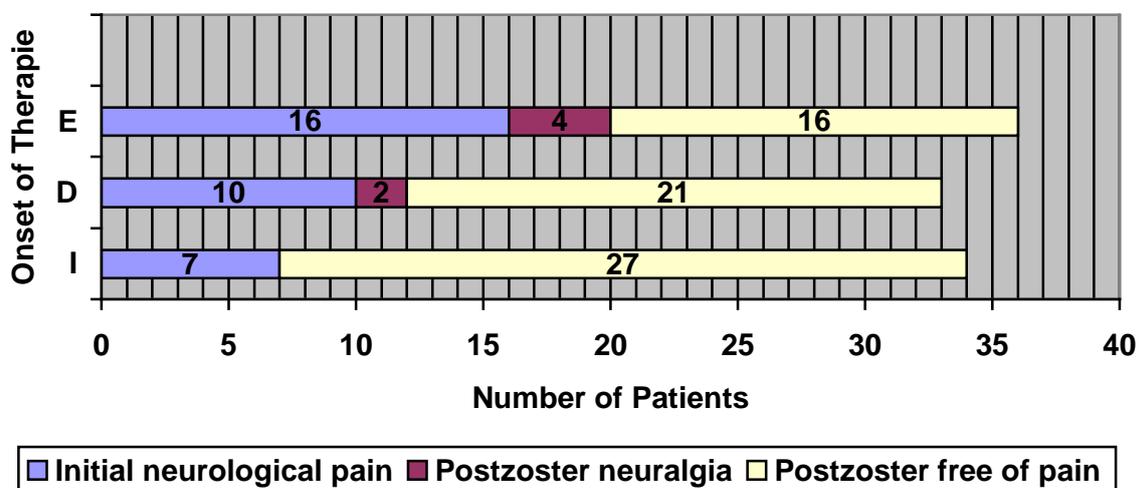
² Zinc deficiency prevents formation of endorphins and can therefore reduce the responsiveness to pain-killing treatment.

³ According to Travell and Simons, a substitution therapy with vitamins B₁, B₆, and C was needed in case of half the patients with painful muscular trigger points in order to achieve a long-term easing of pain.

⁴ Vitamins C and E become scavengers for the free radicals arising in case of infection.

Neuralgic pains could be eased for the most part without taking painkillers.

Pain management by combined ozone therapy proved to be especially advantageous. The danger of post-*zoster* neuralgia emerging depends essentially at the moment when viralstatic therapy is started. In order to minimize risk, it should begin as soon as possible. If antiviral therapy begins only after a certain diagnosis by the appearance of typical efflorescence or after complications emerge, precious time is lost before starting the therapy. The conditions may include intense neuralgic pains or *zoster generalisatus* as well as signs such as pain which become apparent before efflorescence or if one finds the clinical picture of a *zoster sine herpete*.. Thus the way is paved for possible development of post-*zoster* neuralgia. Since ozone therapy has few side effects, it can already be used in case of a suspected diagnosis and hence prevent post-*zoster* neuralgia.



E = After appearance of efflorescence
D = Days after beginning of neuralgia but before appearance of efflorescence
I = Immediately after beginning of neuralgic pain

Total number of patients = 103

Figure 4: Post-*zoster* neuralgia in relation to the onset of therapy

The revitalizing effect that ozone therapy has on patients is worth mentioning. When one considers the fact that the patients are older and weak, this desirable side effect is particularly welcome.

In the sequence below, ozone therapy is compared with traditional types of therapy:

Comparison between ozone therapy (OT) and traditional types of therapy (TT)

OT: OT begins upon suspicion of *zoster*.

TT: Causal therapy only upon final diagnosis, *i.e.*, usually at appearance of efflorescence.

OT: Immune-system stimulating or modulating effect.

- TT:** No favorable effect on immune system.
Antiphlogistic steps (corticosteroids) suppress the defense system.
- OT:** Practically no side effects.
- TT:** Viralstatic agents (*e.g.*, Aciclovir) can show considerable side effects.
- OT:** It has a “strengthening“ effect on older, weakened patients.
- TT:** No “strengthening“ effect.
- OT:** It is more economical than TT.

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