Adtec SteriPlas Treatment of Herpes Zoster Conditions

Herpes zoster is an acute painful infectious skin condition due to the reactivation of the varicella zoster virus, with increasing incidence in the aging population. Acute pain relief is usually required and post-herpetic neuralgia requiring ongoing analgesia is a well recognized complication.

Argon plasma treatment has demonstrated efficacy in reducing bacterial load in chronic wounds, and possibly stimulating wound healing. In this study, weekday 5 min plasma treatments with the Adtec Plasma System was assessed for safety, pain reduction and healing rates of herpes zoster.

Study Outline

37 inpatients with herpes zoster were treated in a prospective randomized placebo-controlled phase II study with either weekday 5 min of cold atmospheric argon plasma (19, active) or with 5 min of argon gas (18, placebo), in addition to a standard treatment regime. Pain was assessed by visual analogue scale before and after active or placebo application. Digital images of lesions were evaluated independently by three blinded clinicians, with regard to vesicles, erythema and general impression.

In this prospective randomized placebo-controlled clinical trial, the effect of weekday 5 min cold atmospheric argon plasma treatments on acute pain and healing was investigated in hospitalised patients with herpes zoster.

Results

Analysis revealed a significantly greater (60.67%, p<0.01) reduction in pain in plasma-treated patients compared to controls, and significantly better median reduction per treatment (0.6 compared to 0.3 in controls, p<0.05). Plasma treatment led to significantly more rapid healing in the first 1-2 days.

Conclusions

Cold atmospheric plasma (CAP) is an innovative technology to treat infections due to a variety of bacteria, fungi and viruses.

Weekday 5 min treatment with cold atmospheric argon plasma was safe, painless and effective, improving initial healing and acute pain in herpes zoster lesions.

Full Study Details can be obtained from the following paper: