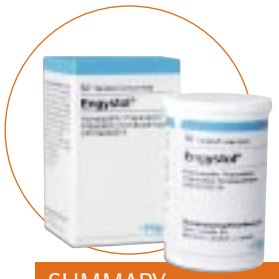
Antiviral Activity of Engystol® against Adenovirus, Respiratory Syncytial Virus & Influenza A virus: an *IN-VITRO* Analysis

Publication in preparation



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SUMMARY

Objectives: The aim of this study was to investigate the antiviral activity of a commercial preparation of Engystol against three different human viruses: adenovirus type 5 (Ad-5), respiratory syncytial virus (RSV) and influenza A virus (Inf-A).

Methods: Antiviral activity was assessed using viral protein-specific ELISAs (Ad-5 and RSV) and by plaque reduction assays (Inf-A). HEp-2 cells (Ad-5 and RSV) or MDCK cells (Inf-A) were infected with virus and incubated with non-cytotoxic concentrations of Engystol. Mean optical density (450 nm) for the ELISAs or mean plaque counts were calculated 7 days after infection. Inhibition of viral activity was evaluated relative to control samples. *In-vitro* cytotoxicity was investigated using microscopic examination (day 6) and MTT testing (day 5) of cells exposed to serial dilutions of Engystol.

Results: Engystol (1:2 dilution) was associated with a relative inhibition of Ad-5 activity of 56.95%. Activity against Ad-5 was observed down to a dilution of 1:64. Engystol (1:2 dilution) also demonstrated antiviral activity against RSV (relative inhibition 37.40%). No antiviral activity was observed against Inf-A virus. Cytotoxicity testing demonstrated no detectable toxic effects of Engystol at a dilution of 1:2 on HEp-2 cells and 1:4 on MDCK cells.

Conclusions: This *in-vitro* analysis provides clear evidence of effective inhibition of Ad-5 protein synthesis by the homeopathic preparation Engystol. Minor antiviral activity was observed against RSV and no significant antiviral effects were noted against Inf-A virus. Engystol represents a good candidate for clinical development as a treatment for the common respiratory ailments caused by adenovirus infection.

Adjuvant Homeopathic Treatment of Peripheral Diabetic Polyneuropathy

Published in the German journal "Der Allgemeinarzt". An English reprint of the study is currently in preparation. **Author:** Angelika-Regine Dietz, M.D.

SUMMARY

Background: To compare the effects of Lymphomyosot® (a homeopathic complex remedy for the treatment of oedema in the extracellular matrix) added to a-lipoic acid therapy with a-lipoic acid monotherapy in the treatment of peripheral diabetic polyneuropathy. Treatments were evaluated on the effects on patient nerve sensitivity and the reduction in palpable edemas.

Study population: 269 patients with type-2-diabetes mellitus and peripheral diabetic polyneuropathy with residual sensitivity in foot/toe/ankle.

Methods: Prospective, multicenter, open-label cohort study (add-on design).

Results: Statistically significant differences between treatments were seen in favor of the superiority of the Lymphomyosot®/a-lipoic acid combination therapy for the subjective criteria: monofilament touch; numbness; prickling paresthesia; nocturnal spontaneous pain; and the reduction in palpable oedemas in the foot/ankle. Additionally, with the combination therapy there was a trend towards a shorter time difference between the onset of improvement of symptoms and an assessment of improved overall conditions by the practitioner. No adverse events were reported for either treatment group.

Conclusions: The addition of Lymphomyosot® to a-lipoic acid therapy for peripheral diabetic polyneuropathy results in a statistically significant and clinically relevant improvement in patient nerve sensitivity and palpable oedemas compared with a-lipoic acid monotherapy.