

Integrative Concepts for Anti-Tumor Treatment and Survival Benefits

Dr. Christian Grah, MD

Hospital Havelhöhe and Research Institute Havelhöhe, Berlin, Germany

Introduction:

In recent decades, the treatment of advanced non-small-cell lung cancer (NSCLC) has changed significantly. However, a metastatic stage (UICC IV) remains unchanged in about 75 % of patients at initial diagnosis. In the past, mistletoe therapy (VAE) was thus faced with very different concepts of conventional oncology. 30 years ago, it was the sole option of best supportive care. Since 1990 it has additionally been an option palliative chemotherapy (CTX). Around 10 years ago about 15% of those affected received a therapy with specific inhibition of driver mutations - goal-oriented therapy. Within the last year, therapy for the activation of the immune defence, - Checkpoint inhibitors (ICI), has been possible for 25% of those affected, which can soon be effective in combination with CTX for 50 % of all patients.

Methods:

What significance will mistletoe therapy have in this context in the future? Since 1990 there have been few but promising studies for the NSCLC. Following initial studies in the 1970s, Piao¹ published positive VAE results on quality of life in 2004. Bar-Sela² found evidence of reduced side effects during CTX. In the PHOENIX 1 study (Grah³), the option of RCT was explored for the first time in an anthroposophic hospital from which now further projects follow as "PHOENIX studies (VAE therapy)" and "ACCEPT studies (complex therapy)".

Results:

In the Network Oncology - a health services research registry - we have published our first results on the combination of VAE and Goal-Orientated Therapy and/or ICI (Thronicke⁴). The Phoenix III project is investigating mistletoe preparations in combination with ICI.

Conclusion:

There is increasing evidence that VAE provides a safe and even over-additive effect in combining ICI with VAE (first results in 2018; still unpublished). In order to further clarify the importance of mistletoe therapy for patients with NSCLC and to continue to investigate and elicit the various indications, research projects in the PHOENIX and ACCEPT programs at the Havelhöhe Research Institute are planned over the next ten years.

Literature:

1. Piao B K WYX, Xie G R, Mansmann U, Matthes H, Beuth J, Beuth H. Impact of complementary mistletoe extract treatment on quality of life in breast, ovarian and non-small cell lung cancer patients. A prospective randomized controlled trial. *Anticancer research* 2004;24:303 - 9.
2. Bar-Sela G, Wollner M, Hammer L, Agbarya A, Dudnik E, Haim N. Mistletoe as complementary treatment in patients with advanced non-small-cell lung cancer treated

with carboplatin-based combinations: a randomised phase II study. Eur J Cancer 2013;49:1058-64.

3. Grah C, Matthes B, Happel H, Lemmens H-P. Randomisierte, offene Phase-II-Studie zur Untersuchung der Verträglichkeit, Sicherheit und Wirksamkeit von Viscum album-Extrakt in der palliativen, additiven Behandlung des fortgeschrittenen nichtkleinzelligen Bronchialkarzinoms (NSCLC). Essen: KVC Verlag; 2013.
4. Thronicke A, Steele ML, Grah C, Matthes B, Schad F. Clinical safety of combined therapy of immune checkpoint inhibitors and Viscum album L. therapy in patients with advanced or metastatic cancer. BMC Complement Altern Med 2017;17:534.