

Table 1: Systematic reviews of mistletoe (*Viscum album*) in cancerSource: Mirjam Wüsthof, CAM-Cancer Consortium. [Mistletoe \(*Viscum album*\) \[online document\]](#). January 2015.

First author year [ref]	Main outcomes	Number of studies Type of studies Number of patients	Main results/Conclusions	Comments
Buessing 2012 [20]	Quality of life	RCTs: n=9 Non-RCTs: n=4 Patients: n=734	A random-effect meta-analysis estimated the overall treatment effect at standardized mean difference = 0.56 (p <0.0001) All studies reported positive effects in favour of the Iscador® treatment	Heterogeneous data, methodological limitations, trials included were of poor quality (Jadad Score 0-2 points out of possible 5) [36]
Kienle 2010 [21]	Quality of life	RCTs: n=26 Patients: n=3058 Non-RCTs: n=10 Patients: n=4996	Evidence for beneficial effect of mistletoe extract on quality of life in 22/26 trials Evidence for beneficial effect of mistletoe extract on quality of life in 10/10 trials	There is evidence of impact on quality of life and reduction of side effects of conventional therapies The studies vary in the degree of methodological quality
Kienle 2009 [22]	Quality of life Survival Tumour response Safety	RCT: n=19 Patients: n=2420 Non-RCTs: n=16 Patients: n=6399 Cohort studies: n=11 Patients: n=1130	Evidence for beneficial effect of mistletoe extract on quality of life in 21/24 trials Evidence for beneficial effect of mistletoe extract on survival in 12/22 non-RCT, no evidence in RCTs Evidence for beneficial effect of mistletoe extract on tumour response in 3/6 cohort studies, no evidence in controlled studies No safety concerns	Methodological quality of studies differed substantially (e.g. small sample size in RCTs) Some recent studies, especially on quality of life were reasonably well conducted
Melzer 2009 [23]	Quality of life Safety	RCT and non-RCT: n=18 Patients: n=6800	Studies indicate a beneficial effect of mistletoe extract on quality of life One serious adverse event (angioedema) was reported	Supportive mistletoe therapy seems safe and beneficial for quality of life Methodological quality of most studies was low

Ostermann 2009 [24]	Survival	RCTs: n=5 Non-RCTs: n=7 Retrospective studies: n=10 Patients: n=3388	Random effect meta-analysis estimated the overall hazard ratio 0.59 (p<0.001) No effect in RCTs: HR=1.24 (p=0.35) Matched pair studies: HR= 0.33 (95%CI: 0.17 to 0.65, p=0.0012)	Pooled analysis of clinical studies suggest that adjuvant treatment of cancer patients with mistletoe extract Iscador® is associated with better survival Methodological limitations (quality: moderate/poor), publication bias. Future studies should focus on transparent design and description of endpoints
Horneber 2008 [25]	Quality of life Survival Safety	RCTs: n=21 Patients: n=3484	Some evidence for beneficial effect of mistletoe extract on quality of life in 14/16 trials Evidence for beneficial effect of mistletoe extract on survival in 6/13 trials Evidence for no beneficial effect of mistletoe extract on survival in 2/13 trials No safety concerns	Only 2 of the 16 studies addressing quality of life (breast cancer patients during chemotherapy) were of higher methodological quality There is some evidence for benefits on quality of life in breast cancer patients during chemotherapy None of the methodologically stronger trials exhibited efficacy in terms of survival Evidence from RCTs of impact on survival or tumour response is weak

RCT = randomised controlled trial