

Cancer-related fatigue in patients treated with mistletoe extracts

A systematic review and meta-analysis

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Cancer-related fatigue

Cancer-related fatigue (CRF) is a persistent exhaustion, not relieved by sleep or rest, which is related to cancer or cancer treatment.

CRF remains one of the most prevalent and distressing symptoms experienced by cancer patients.



Henri Matisse, Lassitude

Mistletoe extracts

Mistletoe extracts are aqueous, total plant extracts from the European mistletoe, *Viscum album* L., used as injectable drugs with indications in oncology.



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Research question

What is the impact of mistletoe extracts as pharmacological treatment for CRF?

P: Cancer patients

I: Therapy with aqueous mistletoe extracts

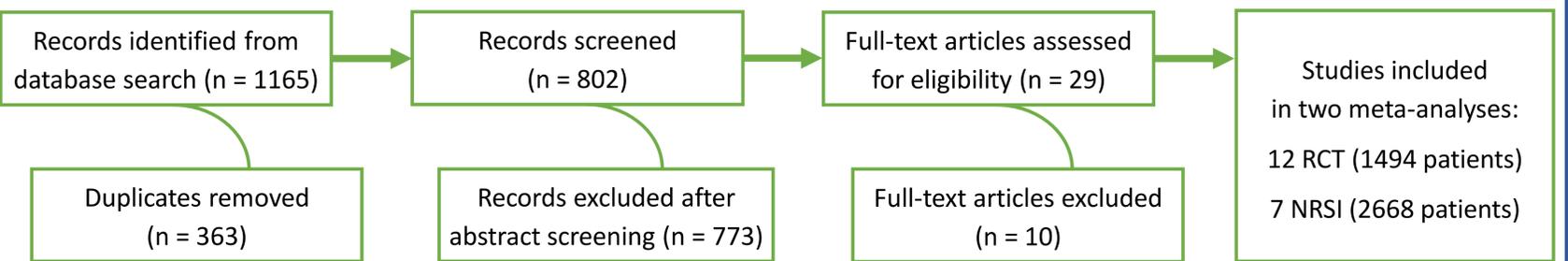
C: Placebo; best supportive care only; oncological treatment according to guidelines only; phytopharmaceuticals

O: Prevalence or severity of CRF according to patient or clinician reported outcome

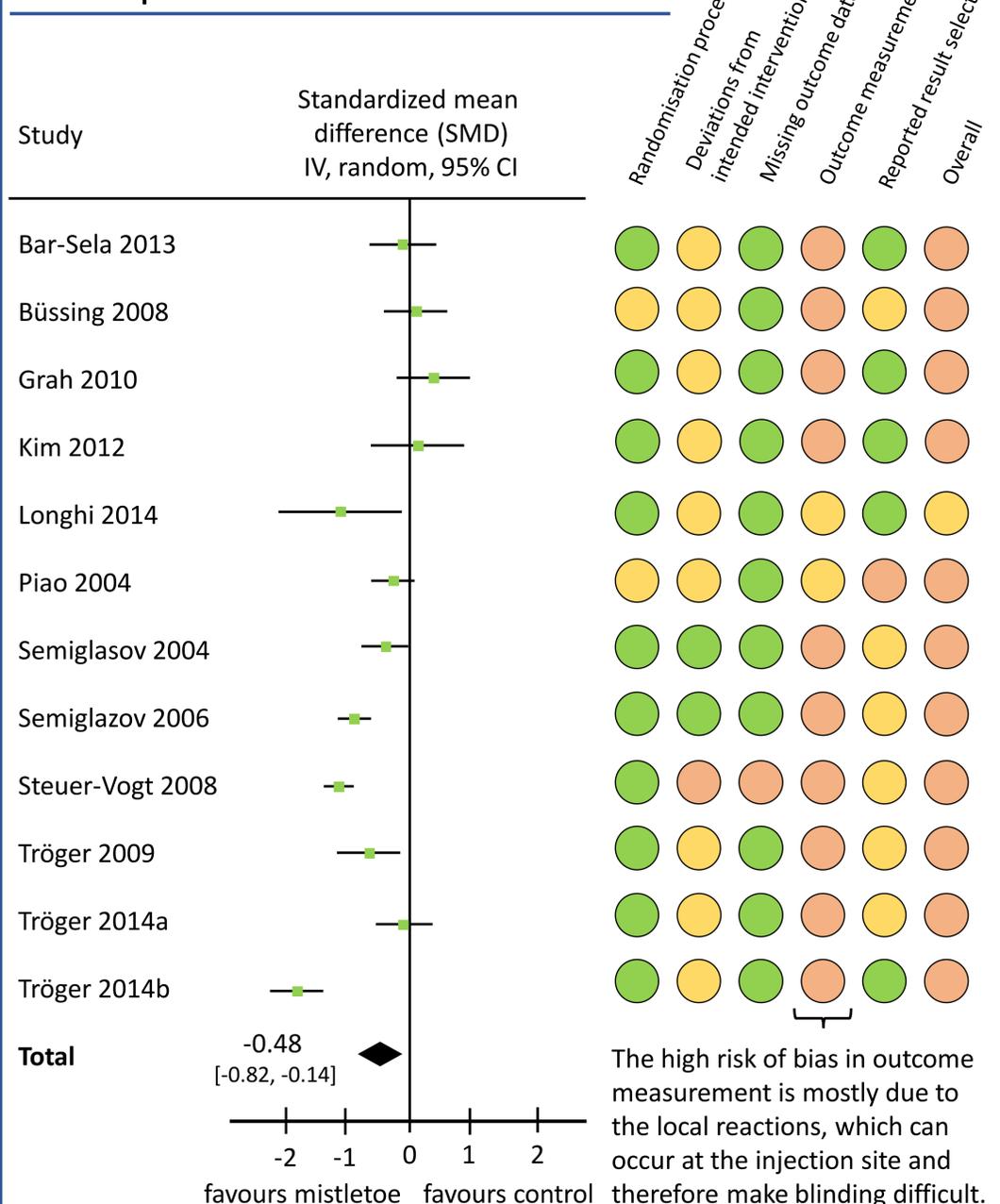
S: Randomized clinical trials (RCT)

Non-randomized studies of intervention (NRSI)

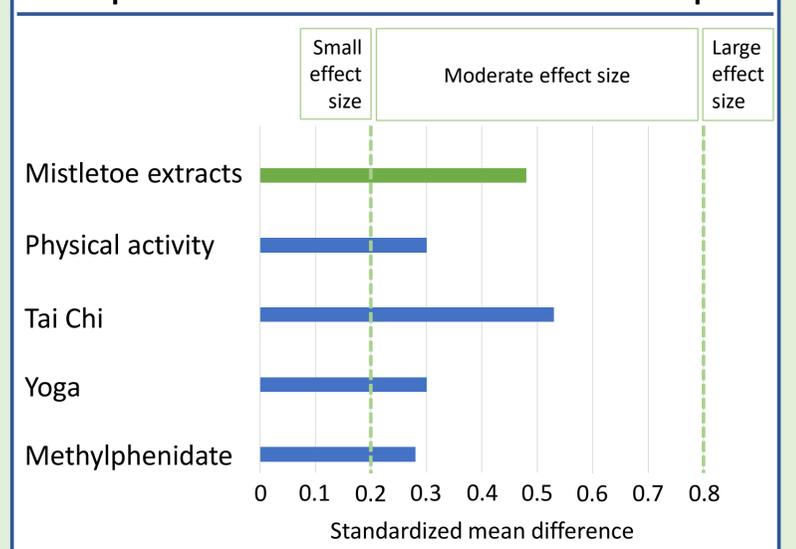
Study selection process



Forest plot and risk of bias for RCT



Comparison with other CRF therapies



Conclusions

Mistletoe extracts reduce CRF compared to control in RCT and NRSI.

In RCT, the pooled effect estimate was SMD=-0.48, which is of similar size to physical activity. In NRSI, the pooled effect estimate was OR=0.36.

This result is relevant in oncological settings where physical activity is not possible or where complementary CRF therapies are sought.

Future research

Future RCT need to be placebo-controlled and define CRF as primary outcome. Suggested topics are

- impact of mistletoe extract treatment duration on CRF
- impact of mistletoe extracts on CRF in post-treatment cancer survivors