

**Table 1: Systematic reviews of *Astragalus* for cancer outcomes**

Source: Ellen Conte, CAM-Cancer Consortium. *Astragalus* spp [online document]. [http://cam-cancer.org/en/astragalus\\_spp](http://cam-cancer.org/en/astragalus_spp), date 2020.

First author, year	Study design	Participants (number, diagnosis)	Interventions (experimental treatments, control)	Main outcome measures	Main results	Comments
Cao 2019	Systematic review and meta-analysis of 19 RCTs	Patients with stage III/IV NSCLC treated with platinum-based chemotherapy 19 RCTs (n = 1635 patients)	Astragalus injection (AGI) alongside platinum-based chemotherapy  Dose of AGI ranged 20-60mL/d for 1-3 weeks during 2-5 cycles	Objective response rate  KPS  1-year survival rate  Immune markers: CD3, CD4, CD4/CD8, NK cells  Chemo toxicity: Leukopenia, thrombocytopenia, vomiting	Improved objective response rate (RR 1.19, 95% CI 1.06-1.33, P = 0.002)  Improved KPS (RR 2.28, 95% CI 1.63-3.18, P < 0.00001)  Improved 1-year survival (RR 1.4, 95% CI 1.16-1.70, P = 0.0005).  Significantly increased percentage of CD3, CD4, NK cells, decreased CD4/CD8.  Significantly decreased leukopenia (RR 0.52, P < 0.00001), platelet toxicity (RR 0.62, P < 0.00001), vomiting (RR 0.72, P = 0.0006).	Quality of studies deemed low based on GRADE system and Cochrane handbook. Risk of publication bias high.  All studies conducted in China
Zhang, 2017	Meta-analysis of 81 RCTs  3 RCTs of astragalus only	Patients with gastric cancer receiving FOLFOX chemotherapy	FOLFOX + astragalus injection compared to FOLFOX alone	Clinical efficacy  Performance status (PS)  Chemotherapy toxicity	Astragalus improved clinical efficacy, OR 3.06 (CI 1.01 to 8.99)  Astragalus improved PS, OR 11.38 (CI 4.62-30.17,) and was statistically significantly better at improving PS than other herbal therapies.  Decreased leukopenia and gastrointestinal reactions, OR 0.22 (0.060 – 0.74), OR 0.16 (CI 0.049-0.5) respectively	Only 3 of the 81 studies included were astragalus-only and sample sizes were quite small. Therefore caution must be used when interpreting these findings.  All studies conducted in China, may affected generalizability  Methodical quality generally low

Legend: AE = adverse event, KPS – Karnofsky performance status, PS = performance status, QoL = quality of life, ITT = intention to treat, PP = per protocol, NSCLC = non-small cell lung cancer

**References**

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Zhang D, Zheng J, Ni M, et al. Comparative efficacy and safety of Chinese herbal injections combined with the FOLFOX regimen for treating gastric cancer in China: a network meta-analysis. *Oncotarget*. 2017;8(40):68873-68889.