Table 1: Controlled clinical trials of curcumin as an anti-tumour treatment

Source: Conte E, CAM-Cancer Consortium. Curcumin [online document]. http://cam-cancer.org/en/curcumin, May 2020.

First author, year	Study design	Participants	Interventions (experimental treatments, control)	Main outcome measures	Main results	Comments
Choi 2019	Double-blind RCT	97 men with prostate cancer who finished their first round of intermittent androgen deprivation (IAD)	Oral curcumin 1440mg/day (n=49) compared to placebo (n=48) daily for 6 months beginning with AD discontinuation	Primary: duration of first off-treatment. Secondary: change in PSA and testosterone, PSA progression rate, HrQOL, safety/adverse events	Median off-treatment duration was 16.3 months (curcumin) and 18.5 months (placebo), p = 0.4816. Proportion of patients with PSA increase of >2ng/mL was lower in curcumin compared to placebo (10.3% vs 30.2%, p = 0.0259). No difference in change of PSA, testosterone, or HRQoL scores. AEs were higher in placebo group (p = 0.0359).	Curcumin was not bioavailability-enhanced
Howells 2019	Randomized, phase IIa trial	27 patients with metastatic colorectal cancer (mCRC) receiving FOLFOX, randomized 2:1	FOLFOX q2 weeks + curcumin 2g daily (C3 complex) (n=18), compared to FOLFOX q2 weeks (n=9) Patients could receive bevacizumab as per usual care	Safety, efficacy, QoL, neurotoxicity, serum curcuminoids, CXC motif chemokine ligand I	Curcumin was safe and well tolerated. Non-significant improvement in PFS of curcumin group (HR 0.57, p = 0.2), Significant improvement in OS of curcumin group (HR 0.34, p = 0.02; median 200d and 502d for control and treatment group respectively). No difference for QoL, neurotoxicity, or CXCL1. Curcumin glucuronide was detectable >1.00 pmol/mL in 15/18 treatment group participants.	Open-label study, small sample size.

He 2011	RCT	126 colorectal cancer patients	360 mg of curcumin or placebo 3 times a day between diagnosis and surgery (10 to 30 days). After surgery, patients received standard care.	Weight loss, serum levels of TNF-α and apoptosis and signaling in tumor tissue	Body weight gain, reduced serum levels of TNF-α, increase in cancer cell apoptosis, upregulation of p53 molecules and modulation of apoptosis-related Bax and Bcl-2 molecules in cancer cells	Short treatment period, no follow up
Ghalaut 2012	Controlled clinical trial, not randomized	50 patients with chronic myeloid leukemia	Imatinib + turmeric powder 5g three times/day dissolved in milk, compared to imatinib alone	Nitric oxide levels, as marker of carcinogensis and CML activity	Significant decrease in NO levels after imatinib therapy in all participants ($p < 0.01$), NO levels in turmeric group was statistically significantly decreased compared to control group ($p < 0.001$)	No placebo was given in the control group, small scale study with short follow up, no randomization (matched-control)

References

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