Table 3a: Systematic review of curcumin in the prevention of cancer

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

First author, year (ref)	Design and methods	Included studies and participants	Included interventions	Main outcome measures	Main results	Comments
Al-Maweri 2019 [18]	Search strategy: Dates: no restrictions, search conducted Aug. 31, 2018 Databases: Medline/PubMed, Scopus, ISI Web of Knowledge Restrictions: language restrictions not reported Quality assessment: bias assessed according to CONSORT statement (low: all criteria met, moderate: one or more criteria partly met, high: one or more criteria not met) Data synthesis: meta-analysis not performed due to heterogeneity	6 RCTs comprising 298 patients	Curcumin was administered as a tablet (5 studies) or lozenge (1 study), at a dose ranging from 600mg – 1000mg daily for 3-6 months. 3/6 studies included 5mg piperine 5mg. Comparators were lycopene (n=2), placebo or lycopene (n=1), clobetasol oinitment (n=1), intralesional dexamethasone + hyaluronidase (n=1), multinal (n=1)	Oral submucous fibrosis (OSF) management and treatment	All studies found curcumin was effective in managing OSF. Reduced pain/burning comparable or better than conventional treatments in all 6 studies, improved mouth opening compared to control (2/3 studies), histological improvement in one study. No long-term follow up to know if curcumin reduced risk of malignant transformation	Quality of studies generally low. One moderate risk of bias, five high risk of bias. No long-term follow up to know if curcumin reduced risk of malignant transformation

Table 3b: Controlled clinical trials of curcumin in the prevention of cancer

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
Golombick 2012	Double-blind, placebo-controlled cross-over RCT 4g study and an open label 8g extension study	36 people with smoldering Multiple Myeloma (n=17) and Monoclonal gammopathy of undetermined significance (n=19)	4g "C3" curcuminoid granule stick packs compared to placebo, cross over at 3 months. After 6 months patients could enter a 3 months open-label extension study with 8g of curcumin "C3"	Disease progression, measured by FLC response and bone turnover	Several markers (rFLC, dFLC, iFLC and uDPYD and serum creatinine) tended to decrease on curcumin treatment, but most were not statistically significant. Suggests that curcumin might have the potential to slow disease progression in patients with MGUS and SMM	Major limitation is the small number of patients and short duration to measure long term decrease in disease progression
Biswas 2010	RCT	286 healthy volunteers chronically exposed to arsenic	1g daily of curcumin or placebo	DNA damage and antioxidant activity	Reduced DNA damage, retarded ROS generation and lipid peroxidation and increased level of antioxidant activity	There is no mention of any participants dropping out what seems very unlikely in this population
Ara 2018	Single-blind RCT	100 people with stage 2 oral submucous fibrosis (OSF)	Curcumin 500mg bid (n=50) or placebo (n=50) for 6 months	OSF management and treatment. Pain/burning, Mouth opening, Objective parameters including blanching, fibrosis, mouth opening, tongue protrusion, cheek flexibility, histological changes	Significant improvement in pain/burning, mouth opening, and most objective parameters in curcumin group, no change in placebo group. Curcumin group had significant improvements from baseline to 6-months in histopathological grading (fewer people with grade III/IV), and clinical staging (86% became stage I at 6-months) compared to the placebo group.	Single-blinded study, results were quite remarkable which raises concern, published in a low impact factor journal

Kuriakose 2016	Double-blind RCT	223 people with oral leukoplakia	Curcumin 3.6g daily (n=111) or placebo (n=112) for 6 months	Clinical response (leukoplakia size), histologic response, durability of response, safety, compliance	Clinical response in 67.5% in curcumin arm compared to 55.3% in placebo arm (p=0.03), response was durable for additional 6 months. No significant difference in histologic response between groups. Combined clinical and histologic response was significantly better in curcumin arm, HR 0.5, (P = 0.02). Safe and well tolerated.	No long-term follow up to know if curcumin reduced risk of oral cancer development.
Cruz-Correa 2018	Double-blind RCT	44 patients with familial adenomatous polyposis	Curcumin 1.5g bid (n=21) or placebo (n=23) for 1 year	Intestinal adenomas – number of polyps Evaluated at baseline, 4 months, 8 months, 12 months	No difference in mean number or size of polyps between placebo group and curcumin group. Safe and well tolerated.	

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