Clinical Studies on Chamomile (*Matricaria recutita* L.)

Oral/Gastrointestinal

Author/Year	Subject	Design	Duration	Dosage	Preparation	Results/Conclusion
Fidler *et al.*, 1996	Stomatitis	Phase III, DB, PC, R n=164	2 weeks	30 drops extract in 100 ml water as mouthwash 3x/day vs. placebo	Kamillosan® Konzentrat, diluted in water	Chamomile mouthwash administered in addition to cryotherapy did not significantly alleviate 5 flourouracil (5-FU)-induced stomatitis (p=0.32). However, subset analysis based on gender did reveal unexpected differential effects, suggesting that chamomile might be beneficial for males but detrimental for females. This could not be explained by reasons other than chance.
Carl and Emrich, 1991	Stomatitis and mucositis	U n=98	Varying durations for different treatment groups	Oral rinse during repeated cycles	Kamillosan® Liquidum	Chamomile oral rinse decreased stomatitis and was found to be beneficial in the treatment of mucositis resulting from radiation and cancer chemotherapeutic agents. The resolution of mucositis appeared to be accelerated by the chamomile rinse. Prophylactic oral care appeared to modify oral environment favorably and maintain tissue integrity.
Nasemann, 1975	Astringent and cooling effect	DB n=36	18 months	Mouth wash, 5–6x/day	Kamillosan®	With exception of patients with glossodynia, extract showed astringent and cooling action.

Dermatological

Author/Year	Subject	Design	Duration	Dosage	Preparation	Results/Conclusion
Glowania *et al.*, 1987	Dermabrasion	R, PC, DB n=14 healthy males with abrasions of tattoos on the arms with Derma III equipment (1.5 mm depth)	14 days	Chamomile extract compresses for 1 hour, 3x/day until wounds are completely dry	Chamomile extract standardized to 3 mg chamazulene and 50 mg levomenol	Objective parameters were used to evaluate epithelial and drying effect of chamomile preparation applied topically to weeping wound area after dermabrasion from tattoo removal. Chamomile extract significantly decreased weeping wound size, and sped up healing time by enhancing drying of oozing wounds.
Aertgeerts *et al.*, 1985	Inflammatory dermatoses	Cn, Cm, MC n=161	3–4 weeks	Chamomile cream vs. 0.25% hydrocortisone, 0.75% fluocortin butyl ester, 5% bufexamac	Kamillosan® Crème	Chamomile cream showed more or less equally effective therapeutic results as hydrocortisone for treatment of inflammatory dermatoses. It proved superior to the nonsteroidal, anti-inflammatory agent 5% bufexamac as well as to 0.75% fluocortin butyl ester. For treatment of neurodermatitis, chamomile cream was therapeutically comparable to hydrocortisone and superior to other tested products.

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Clinical Studies on Chamomile (*Matricaria recutita* L.) (cont.)

Other

Author/Year	Subject	Design	Duration	Dosage	Preparation	Results/Conclusion
de la Motte *et al.*, 1997	Acute diarrhea in children	P, DB, R, MC, PG, PC n=79 children, 6 months to 5.5 years	3 days	1st dose 10 ml, followed by 5 ml/hour, up to 60 ml/day	Diarrhoesan® Chamomile fluid extract (0.035 mg/g chamazulene and 0.5 mg/g (-)-α-bis-abolol) combined with apple pectin	After 3 days of treatment, diarrhea in the pectin/chamomile group had ended significantly ($p<0.05$) more frequently than placebo. Pectin/chamomile reduced duration of diarrhea significantly ($p<0.05$) by at least 5.2 hours. Parents documented subjects' well-being in a diary twice daily and, compared to placebo, a trend of continuous improvement was observed in the pectin/chamomile group.
Roberts and Williams, 1992	Neurology, psychiatry	PC n=22	1 day	1x exposure vs. placebo	Chamomile flower volatile oil	Patients were asked to visualize positive and negative phrases following olfactory stimulation by chamomile oil or placebo. Chamomile oil significantly increased latency for all images, and shifted mood ratings and frequency judgments in a more positive direction, suggesting a possible mode of action.
Saller *et al.*, 1990	Respiratory	PC, R n=60	1 day	Steam inhalation, 1x/5 hours	Kneipp® Kamillen-Konzentrat, alcoholic fluidextract diluted in boiled water	Steam inhalation, below a towel, with chamomile extract in hot water reduced the severity of common cold symptoms in a pronounced and dose-dependent manner. Onset of action occurred within 15 minutes and reached maximum effect between 30–120 minutes; then efficacy declined after 2–3 hours.
Gould *et al.*, 1973	Cardio-vascular effects	U n=12 hospitalized patients	1 day	2 tea bags in 6 ounces boiled water, 1x	Chamomile flower tea infusion (brand not stated)	Significant increase in mean brachial artery pressure from 91 to 98 mmHg ($p<0.05$). No other significant hemodynamic changes were observed. Blood pressure and cardiac output were measured prior to drinking tea and 30 minutes later. Average cardiac index showed only slight decrease, and average stroke index was essentially unchanged. 10 of the 12 patients fell into deep sleep 10 minutes after ingestion, lasting until end of cardiac catheterization approximately 90 minutes.

Combination Product with Chamomile (Essential Oil)

Author/Year	Subject	Design	Duration	Dosage	Preparation	Results/Conclusion
Burns *et al.*, 2000	Pain during childbirth	O n=8,058	8 years	Not stated	10 essential oils, including chamomile	The study found that aromatherapy with 2 of the tested essential oils, clary sage and chamomile, reduced maternal anxiety, fear, and/or pain during labor. The use of aromatherapy was found to reduce the use of systemic opioids in the study center, from 6% in 1990 per woman to 0.4% in 1997.

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