
**[Crataegus oxyacantha (aubepine) in the use as herb medicine in France]**

[Article in Chinese]

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Crataegus oxyacantha (Aubepine, Hawthorn), was used by European herbalist in the first century A. D. It went out fashion as a medicine until the 19th century for heart disease. The leaves, flowers, and berries of hawthorn contain a variety of bioflavonoid-like complexes that appear to be primarily responsible for the cardiac actions of the plant. Bioflavonoids found in *C. oxyacantha* include oligomeric procyanidins (OPC), vitexin, quercetin, and hyperoside. The action of these compounds on the cardiovascular system has led to the development of leaf and flower extracts. As described in French pharmacopea, the hyperoside is the marker for quality control.

PMID: 16011292 [PubMed - in process]


**Double-blind, randomised, placebo-controlled study to evaluate the efficacy and safety of a fixed combination containing two plant extracts (Crataegus oxyacantha and Eschscholtzia californica) and magnesium in mild-to-moderate anxiety disorders.**

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OBJECTIVE: To assess the clinical efficacy of a neurotonic component containing fixed quantities of two plant extracts (Crataegus oxyacantha and Eschscholtzia californica) and magnesium versus placebo in mild-to-moderate anxiety disorders with associated functional disturbances, under usual general practice prescription conditions. RESEARCH DESIGN AND METHODS: A total of 264 patients (81% female; mean age: 44.6 years) presenting with generalised anxiety (DSM-III-R) of mild-to-moderate intensity (total Hamilton anxiety scale score between 16 and 28) were included in a double-blind, randomised, placebo-controlled trial. Patients were randomly assigned to two groups: 130 received the study drug (Sympathyl), and 134 a placebo (two tablets twice daily for 3 months). Efficacy and safety data were recorded before first administration and 7, 14, 30, 60 and 90 days after start of treatment. MAIN OUTCOME MEASURES: Efficacy was assessed by (a) change in Hamilton anxiety scale total and somatic scores; (b) change in patient self-assessment; (c) number and percentage of responsive subjects (reduction of at least 50% in Hamilton or self-assessment score); and (d) the physician's clinical global impression. Tolerance was assessed by undesirable events spontaneously reported by the patients over the study period. RESULTS: Total and somatic Hamilton scale scores and subjective patient-rated anxiety fell during treatment, indicating clinical improvement. The decrease was
greater in the study drug than in the placebo group. End of treatment clinical improvement, as measured by the mean difference between final and pre-treatment scores, was, for the study drug and placebo groups respectively: -10.6 and -8.9 on the total anxiety score (p = 0.005); -6.5 and -5.7 on the somatic score (p = 0.054); and -38.5 and -29.2 for subjectively assessed anxiety (p = 0.005). The risk/benefit ratio as judged by the investigating physicians was also significantly greater in the study drug than in the placebo group. In all, 15 patients (11.5%) in the study drug group and 13 patients (9.7%) in the placebo group experienced 22 and 15 adverse events, respectively. Undesirable events were mainly mild or moderate digestive or psychopathological disorders. CONCLUSIONS: The preparation containing fixed quantities of Crataegus oxyacantha, Eschscholtzia californica, and magnesium proved safe and more effective than placebo in treating mild-to-moderate anxiety disorders. Sympathyl is produced and marketed by Laboratoire Innotech International, Arcueil, France.

Publication Types:

- Clinical Trial
- Randomized Controlled Trial

PMID: 14741074 [PubMed - indexed for MEDLINE]


A randomised double blind placebo controlled clinical trial of a standardised extract of fresh Crataegus berries (Crataegisan) in the treatment of patients with congestive heart failure NYHA II.

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A placebo controlled, randomised, parallel group, multicentre trial conducted in accordance with the guidelines of Good Clinical Practice (GCP) shows the efficacy and safety of a standardised extract of fresh berries of Crataegus oxyacantha L. and monogyna Jacq. (Crataegisan) in patients with cardiac failure NYHA class II. A total of 143 patients (72 men, 71 women, mean age of 64.8 (8.0 years) were recruited and treated with 3 times 30 drops of the extract (n = 69) or placebo (n = 74) for 8 weeks. The primary variable for the evaluation of efficacy was the change in exercise tolerance determined with bicycle exercise testing, secondary variables included the blood pressure-heart rate product (BHP). Subjective cardiac symptoms at rest and at higher levels of exertion were assessed by the patient on a categorical rating scale. An overall assessment of efficacy at the final visit was provided by the patient and the investigator. In the ITT population there was a significant increase in exercise tolerance in both groups between visit 1 and visit 3. The difference between the treatment groups was 8.3 watts in favour of the standardised extract of fresh Crataegus berries (p = 0.045). The result is confirmed in the PP population (p = 0.047). Changes in BHP at 50 watts and at comparable maximum load were in favour of Crataegus extract but the results are not statistically significant. The subjective assessment of cardiac symptoms at rest and at higher levels of exertion did not change significantly and the patient and investigator overall assessment of efficacy were similar for the two groups. The medication was well tolerated and had a high level of patient acceptability. The significant improvement, due to the fact that dyspnoea and fatigue do not occur until a significantly higher wattage has been reached in the bicycle exercise testing allows the conclusion that the recruited NYHA II patients may expect an improvement in their heart failure condition under long term therapy with the standardised extract of fresh Crataegus berries.

Publication Types:

- Clinical Trial
- Multicenter Study
- Randomized Controlled Trial

PMID: 12833999 [PubMed - indexed for MEDLINE]
Interaction study between digoxin and a preparation of hawthorn (Crataegus oxyacantha).

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Hawthorn, an herbal supplement, is currently being evaluated for the treatment of heart failure. The flavonoid components of hawthorn may be responsible for hawthorn's beneficial effects in the treatment of heart failure. However, these components may also affect P-glycoprotein function and cause interactions with drugs that are P-glycoprotein substrates, such as digoxin, which is also used to treat heart failure. Therefore, the purpose of this study was to determine the effect of hawthorn on digoxin pharmacokinetic parameters. A randomized, crossover trial with 8 healthy volunteers was performed evaluating digoxin 0.25 mg alone (D) for 10 days and digoxin 0.25 mg with Crataegus special extract WS 1442 (hawthorn leaves with flowers; Dr. Willmar Schwabe Pharmaceuticals) 450 mg twice daily (D + H) for 21 days. Pharmacokinetic studies were performed for 72 hours. There were no statistically significant differences in any measured pharmacokinetic parameters. The AUC0-inf, Cmax-Cmin, Cmin, and renal clearance for the D group were 79 +/- 26 mcg.h/L, 1.4 +/- 0.7 mcg/L, 0.84 +/- 0.2 mcg/L, and 74 +/- 10 mL/min versus 73 +/- 20 mcg.h/L, 1.1 +/- 0.1 mcg/L, 0.65 +/- 0.2 mcg/L, and 81 +/- 22 mL/min for the D + H group, respectively (p > 0.05). Following 3 weeks of concomitant therapy, hawthorn did not significantly alter the pharmacokinetic parameters for digoxin. This suggests that both hawthorn and digoxin, in the doses and dosage form studied, may be coadministered safely.

Publication Types:

- Clinical Trial
- Randomized Controlled Trial

PMID: 12817526 [PubMed - indexed for MEDLINE]
mild rash, headache, sweating, dizziness, palpitations, sleepiness, agitation, and gastrointestinal symptoms. Hawthorn may interact with vasodilating medications and may potentiate or inhibit the actions of drugs used for heart failure, hypertension, angina, and arrhythmias. The limited data about hawthorn suggest that it may be useful in the treatment of NYHA functional class II CHF.

Publication Types:

- Review

PMID: 11887407 [PubMed - indexed for MEDLINE]


Erratum in:


Protective effect of Crataegus oxyacantha against reperfusion arrhythmias after global no-flow ischemia in the rat heart.

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The protective effect against reperfusion arrhythmias of a 3-month oral pretreatment with a dried extract of Crataegus oxyacantha (LI 132) (standardized to 2.2% flavonoids) was studied with the Langendorff heart of the rat after global no-flow ischemia. The heart was perfused with a modified Krebs-Henseleit solution in which the K+ content was reduced to 3.4 mmol/l in order to lower the fibrillation threshold. According to pilot experiments which considered various durations of global no-flow ischemia ranging from 10 to 20 minutes, two durations were chosen for the present study: 20 minutes (group 20) in which ventricular fibrillation (VF) was the predominant form of arrhythmias, and 18 minutes (group 18) in which the prevalence of VF was markedly lower despite the small difference in the duration of ischemia. Crataegus pretreatment significantly (p = 0.02) reduced the average prevalence of malignant arrhythmias (VF + Flutter) as observed during the 20-min-period of reperfusion as follows: group 20: from 89% (control, n = 9) to 51% (LI 132, n = 7), group 18: from 48% (control, n = 8) to 8% (LI 132, n = 8). In group 20, ventricular tachycardia (VT) could be observed only in the treated group, because of the predominance of VF in the control group. LI 132 pretreatment reduced the average prevalence of VT in group 18 in spite of the identical percentage of occurrence (6 out of 8 rats, with and without treatment) due to a shorter duration of the VT episodes. Thus, under the conditions of our experiments, effective prevention against reperfusion arrhythmias by Crataegus pretreatment was evident.

PMID: 10326654 [PubMed - indexed for MEDLINE]


Hypolipidemic activity of tincture of Crataegus in rats.

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Tincture of Crataegus (TCR), an alcoholic extract of the berries of Crataegus oxyacantha, when administered to rats fed a hyperlipidemic diet (HLD), could prevent the elevation in plasma lipid levels. A significant decrease in lipid deposits in liver and aorta was also observed. Analysis of the plasma lipoprotein profile showed that TCR produced remarkable reduction in the increased levels of cholesterol, triglycerides and
phospholipids in the low density lipoprotein (LDL) and very low density lipoprotein (VLDL) fractions in hyperlipidemic rats. Histological examination showed severe fatty vacuolation and degeneration of liver of HLD fed rats. TCR administration had an ameliorating effect on these changes. Agarose gel electrophoretic pattern of plasma lipoproteins also indicated that the drug brought down the raised levels of the atherogenic beta-lipoproteins in hyperlipidemic rats.

PMID: 7927437 [PubMed - indexed for MEDLINE]