

# Mills and Bone Academy

Educational Article

## Feverfew for Migraine Headaches – Kerry Bone

### The Feverfew Story

In 1973, at the suggestion of a friend and apparently based on the advice of a traditional Welsh healer, a Welsh woman named Anne Jenkins tried taking three fresh leaves of feverfew (*Tanacetum parthenium*) each day in an attempt to rid herself of severe and recurrent migraines. After 10 months Mrs Jenkins' headaches had vanished and did not return so long as she kept taking feverfew. Her enthusiasm rapidly led to the widespread use of feverfew in the UK. Dr Stewart Johnson a London migraine specialist became interested and initiated a survey that was then followed up by a clinical trial. The survey revealed some interesting findings:<sup>1</sup>

- About 72% of those surveyed (253 suffering from true migraine) found that feverfew was helpful for the prevention of their headaches; 78% of

the 23 people suffering from tension headaches also found that feverfew reduced headache frequency and severity. Of the 242 people who recorded the frequency, 33% no longer had attacks and another 43% had fewer migraines each month compared to before taking feverfew.

- Migraine nausea and vomiting decreased or disappeared and a proportion of patients experienced the migraine aura without the attack.
- When attacks did occur, they responded better to conventional painkillers (such as aspirin). Feverfew users experienced no adverse interactions with their orthodox medication.
- Many patients also suffering from arthritis found their symptoms somewhat relieved by feverfew.

- The onset of the effect was slow and gradual, often taking several months, and the average dose used was relatively low.

An initial pilot trial in 1985 showed promise,<sup>ii</sup> so a few years later 59 patients with classical or common migraine completed a randomised, double blind, placebo-controlled crossover study. Only 17 of these patients had previously tried feverfew. Patients were randomly allocated to receive either one capsule of freeze-dried powdered feverfew (averaging 82 mg) or placebo for 4 months and then crossed over to the other treatment for a further 4 months. Feverfew was associated with a 24% reduction in the average number of attacks and a significant reduction in the amount of vomiting. There was also a trend towards a reduction in severity of attacks, although the duration of individual attacks was unaltered. Treatment with feverfew did not produce any adverse effects.

Next a team of Dutch scientists who had been very active in the field of feverfew research tested the efficacy of a

standardised extract for the prevention of migraine headaches. In a randomised, placebo-controlled, double blind, crossover design, 50 patients who had never taken feverfew before and experienced at least one migraine attack per month were followed for 4 months of active treatment and 4 months of placebo. The feverfew preparation used in this study did not exert any significant preventative effect on the frequency of migraine attacks, although patients seemed to use fewer analgesic drugs while they were using feverfew.<sup>iii</sup>

In a subsequent double blind, placebo-controlled trial, 57 chronic migraine sufferers (43% suffered more than 10 attacks per month) were selected at random and divided into two groups. Both groups received powdered feverfew capsules (a total of 100 mg per day of dried leaves containing 0.2 mg parthenolide) in the preliminary phase, which lasted 2 months. In the second and third phases, which continued for an additional 2 months, a double blind, placebo-controlled, crossover study was conducted. The reduction in pain intensity of migraines before and after treatment

with feverfew (measured in the first phase) was highly significant. In the next phases, patients receiving feverfew continued to experience a decrease in pain intensity, while it increased in those switched to placebo. The difference between the two groups was significant. A profound reduction was observed in the typical migraine symptoms such as vomiting, nausea and sensitivity to noise and light.<sup>iv</sup>

A German research team next studied the efficacy of a special extract of feverfew in two randomised, double blind, placebo-controlled trials. In the first trial, the efficacy and tolerability of 3 different doses per day of the extract (6.24 mg, 18.75 mg and 56.25 mg corresponding to 0.5 mg, 1.5 mg and 4.5 mg of parthenolide) were compared to a placebo over 12 weeks.<sup>v</sup> Results from this first trial were rather inconclusive.

This was followed up by the second trial that assessed the efficacy of only the 18.75 mg/day extract dose against placebo.<sup>vi</sup> Patients suffering from migraine were treated for 16 weeks. The primary endpoint was the average number of

migraine attacks per 28 days during treatment months 2 and 3 compared with baseline. The migraine frequency fell by 1.9 attacks per month in the feverfew group and by 1.3 attacks in the placebo group. Statistical analysis revealed that the feverfew was significantly superior to placebo. The authors concluded that the feverfew extract was effective and shows a favourable benefit-risk ratio.

A recent study has suggested that a higher dose of feverfew than used in the earlier studies (600 mg/day), together with a relatively small dose of willow bark (*Salix alba*, 600 mg/day), might bring on a quicker result in migraine prevention. The herbal combination was standardised for parthenolide (0.2%) and salicin (1.5%).<sup>vii</sup> A prospective, open-label study was performed in 12 patients diagnosed with migraine without aura. Twelve weeks' treatment with the herbal combination was administered to determine the effects of the therapy on migraine frequency, intensity and duration, and quality of life. The herbal treatment dramatically reduced the frequency and intensity of migraine headaches.

Although this was an open-label trial, and hence lacking a placebo group, the results are

quite striking. They suggest that combining feverfew in higher doses with willow bark might result in significant clinical improvement in migraine frequency within 6 weeks. The obvious next step is to conduct a placebo-controlled trial for this combination.

### **The Practical Implications**

Probably because of the initial use and promotion of a low dose of the fresh leaves by Mrs Jenkins, there is a tendency to use quite low doses of feverfew in migraine prevention. However, this can mean that it might take 6 to 9 months before an effective migraine prevention occurs. With this length of time you might give up before any benefit occurs. So the use of higher doses of feverfew in migraine prevention is better in order to establish a faster clinical effect. Also, it can be

combined with other relevant herbs and supplements to maximise the magnitude and speed of the onset of migraine relief, such as willow bark. Typically, doses of at least 3 to 5 mL per day of the 1:5 tincture in around 60% ethanol or its equal in tablets or capsules (600 to 1000 mg/day of dried herb equivalent) are recommended. I have found this dosage strategy to be successful in many patients, but it can still take a few months before a noticeable effect kicks in. Once sufficient prevention is induced, the dose can be backed off to a suitable level to maintain the reduced frequency of headaches.

### **References**

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