

Let's set the record straight! Traumatic tissue injury treated with homeopathic Arnica Montana - An injury therapist's perspective

Abstract

Here we look at studies that involved the use of both Homeopathic Arnica Montana (AM) dilution creams and the ingestion of AM as a dilution. For acute injuries where there is clearly the tearing of bodily tissue resulting in the release of the associated biochemical reaction, the studies shown positive results when using Homeopathic AM. Whereas studies that have concentrated on the use of AM for DOMS (delay onset of muscles soreness) in other words muscles that have been 'worked hard' are not positive. Since the development of more sensitive technology we are now able to see the effect of Homeopathy on molecules and DNA allowing us to also look at some new evidence regarding the effect of AM at this deeper level.

Keywords: homeopathy, arnica montana, high-dilution, DOMS, nanomedicine, high-dilution pharmacology, homeopathy and gene expression profiles, molecules and homeopathy, DNA and homeopathy, inflammatory possessed, ligament contusions and lacerations, traumatic injury, sports injury, sports post-trauma ankle sprains, anti-inflammatory, ICAM-1, M2/M1 macrophages, knee surgery, nano-pharmacology, sprains, strains, inflammation, contusions and lacerations

Volume 1 Issue 5 - 2015

Francesca Charlton

Swedish Forest Honey, Sweden

Correspondence: Francesca Charlton, Swedish Forest Honey, Österrike 41, 68 391 Hagfors, Värmland, Sweden, Tel 0046 (0) 730 28 25 75, Email fatreasure@gmail.com

Received: June 03, 2015 | **Published:** October 13, 2015

Abbreviations: AM, arnica montana

Introduction

Anyone who has had the opportunity to really look at the research around Homeopathic AM (Arnica Montana) in the area of sport related injuries will quickly see that there is a lot of conflicting information, bias/rhetoric for and against. There is positive practical experience from our athletes in the field which is then easily brought into question by looking at the negative results reported by reviews of research in our various sports journals. There is a combination of negative and positive attitudes coming from the reviewers as well! There is a lot of ambiguous causal texture to see through, yet injury therapists just want clear information that can be applied practically.

My bias comes from practical experience, I am a student homeopath, and injury therapist qualified through Active Health Group in 2004 and a injury massage therapist qualified in 1996. I have been using homeopathy for chronic and acute injuries that are sports and accident related. I am not going to coldly report to you only findings that someone else has discovered, you will read here a combination of research that others have done and my personal experience. My real bias is toward the comfort of my patients and finding the quickest route possible to their recovery. I regularly require the help of AM as a tool for speeding up the recovery process and lowering the pain levels experienced by my patients.

What is homeopathy?

Homeopathy was developed by Hahnemann S,¹ a German physician. It is based on the principle that "like cures like". In simple words, it means that any substance, which can produce symptoms in a healthy person, can cure similar symptoms in a person who is sick.

This idea is referred to as the "Law of Similars".² High dilutions of the substances (of which there are over 2500) are administered most commonly through small pills or in water.

AM past, present and future

It is easy to get confused about the difference between Homeopathic AM and Herbal AM as quite often news paper reports and magazine articles do not differentiate between the two. The herbal materials, known for their excellent wound healing properties since ancient times, used in tinctures, oils and creams are made from extracts of the roots and the flowers of the Arnica Montana plant that can be harvested from European, Brazilian and Canadian Alpine regions. A study carried out on 128 herbs shows that wild AM (Arnica sp.) is only used externally (or as a homeopathic drug) and not in open wounds, and its leaves or flowers are rubbed on to bruises or the crushed leaves are bandaged on the wound.³ These parts of the plant have antiseptic, antibiotic, wound healing, immunomodulatory, haemostatic properties, activates the mechanisms of tissue restoration and healing, stimulates circulation and promotes hematoma resorption.⁴ There are a number of creams, oils and gels on the market today that contain AM in its crude form from companies like Arnicare (Boiron), Weleda and Bioforce.

Compared to this the use of AM as a Homeopathic high dilution is quite recent. Hahnemann began studying the benefits of Homeopathic AM and using it as a dilution early in the 1800's. He discovered a huge range of applications during his research that aided and cured many deeper physical, mental and emotional ailments. Today Homeopathic AM is widely used as a topical application in creams and oils for pains and strains. As well as this, in my clinic and many others, Homeopathic AM is often used for patients that are suffering from acute and long term inflammation and pain often caused by accidents at work, sport and from falling.

In the last two years exciting research with homeopathic dilutions in the new scientific area of nano-pharmacology and the study of gene array responses have been seeing and reporting the measurable effectiveness of homeopathy, see one such study below in Table 1 using AM. It is possible that we could rapidly see the issues for homeopathy changing from trying to prove that homeopathy works to simply looking at what exactly the biochemical reaction to the remedies are. Research papers being published are showing that advancements

in technology are making it possible for us to measure/read gene expression profiles when coming into contact with homeopathic dilutions and they have been seeing the effect of homeopathy on Molecules and DNA. High-dilution pharmacology is emerging as a pioneering subject in the domain of nanomedicine and is providing greater plausibility to the puzzling claims of homeopathy.^{6,7} It seems that the future of homeopathic research could get very interesting.

Table 1 Homeopathic AM dilution and its effectiveness for muscle and ligament contusions and lacerations

Research Title and Authors	Their conclusions
The effectiveness of Arnica Montana treatment, in sports post-trauma ankle sprains. ⁵ Type of study: RCT – No blind. No. of subjects: 40 men Remedy: AM 200c	The present study confirms the anti-inflammatory qualities of homeopathic and phytotherapeutic AM, the novelty being the use, in post-sport ankle sprain, of AM 200CH and its combination with two creams containing AM, Artrin and Rucicelit. In this combination, the effects on reducing the pain sensation and edema size, although without significant H-HP differences, were more effective in the examined amateur sport practitioners.
Assessment of anti-inflammatory activity of homeopathic arnica montana. Type of study: Clinical - part blind part not. No. of subjects: 21 rats and HUVECs Remedy: AM 9ch	On one hand, Arnica montana 5 cH attenuated significantly ICAM-1 expression in endothelial cells compared to placebo. This suggested that Arnica 5 cH has anti-inflammatory properties in the vasculature which contributes to modulate in reperfusion injury inflammation and vascular disease. On the other hand, the in-vivo study didn't show significant amelioration of the amount of CD31+ cells and of histological aspect of regenerating muscles with Arnica montana 9 cH. However, this treatment significantly increased M2/M1 macrophages ratio compared to placebo.
Arnica 30x after knee surgery. ⁶ Type of study: combination of results from 3 separate RCT - Double blind trials. No. of subjects: unknown Remedy: AM 30x	After artificial knee joint implantation the average swelling in the placebo group was 4.6% and 2.9% in the verum group. After cruciate ligament ruptures the mean changes are 4.8% under placebo treatment and 3.1% in the verum group. The difference within this group is significant.

The two following tables look at research using Homeopathic AM dilution for two types of exercise-induced physical problems. Table 2 shows results for AM on DOMS (Delayed Onset of Muscle Soreness), all of which found that AM does not help to relieve the symptoms.

Table 1 show positive results for AM used for injuries involving inflammatory processes that are associated with muscle and ligament contusions and lacerations.

Table 2 Homeopathic AM dilution and its effectiveness on DOMS

Research title and authors	Conclusions
Effects of the homeopathic remedy arnica on attenuating symptoms of exercise-induced muscle soreness. ⁸ Type of study: RCT - Double blind No. of subjects: 20 Remedy: AM 200c	The results of this study did not substantiate the clinical efficacy of Arnica at a high potency on moderating delayed onset muscle soreness and accompanying symptoms of muscle dysfunction.
A Randomised Double Blind Placebo Controlled Trial ⁹ Type of study: RCT - Double-blind No. of subjects: 58 Remedy: AM 30c	The study did not find benefit of the homeopathic remedy in DOMS. Bench stepping may not be an appropriate model to evaluate the effects of a treatment on DOMS because of wide variation between subject soreness scores.
Various treatment techniques on signs and symptoms of delayed onset muscle soreness. ¹⁰ Type of study: Journal review	The results of this study did not reveal a treatment method that was significantly better than that of a placebo for the symptoms of DOMS.
Effect of a homeopathic arnica preparation (D4) on delayed onset muscle soreness. Placebo-controlled crossover study. ¹¹ Type of study: RCT - Double-blind No. of subjects: 35 Remedy: AM D4	Neither for the measurements of strength nor laboratory parameters was significant differences found between the arnica and placebo groups.

I could cite more research done for AM on DOMS but they are for the most part are saying the same thing, i.e. Homeopathic AM cannot be proven to work for DOMS. Specifically, with this type of workout where Creatine kinase, lactate dehydrogenase, aldolase, myoglobin, troponin, aspartate aminotransferase, and carbonic anhydrase CAIII are the most useful serum markers of muscle injury,¹² and although the athletes taking AM experienced less pain on the first day after training the above biochemicals were at the same levels in their system as the placebo group and by the second day and their pain score experiences were the same. For me as a homeopath these research papers contain good information, they have confirmed that AM does not work in the way they used it. They do not confirm that homeopathic AM does not work on all injuries. There is the issue of whether or not it was the correct remedy, the researchers couldn't know this as they didn't take the symptoms of the participants when they arose, and they predicted them, which is not how homeopathy is conducted. Future investigations on the clinical efficacy of homeopathic interventions should consider incorporating research strategies that emphasize differential therapeutics for each patient rather than treating a specific disease or symptom complex, such as DOMS, with a single homeopathic remedy. On a practical level the way they used the remedy was not a true to life situation, and not how a remedy would be looked for, which is always based on presenting symptoms.

Another problem that I came across here is one of categorization within research journal search engines. Papers on DOMS comes up under 'traumatic injury' and 'sports injury' searches, which I would argue is not the correct place for them. To my mind stiff muscles after a hard training session are not the same as a regular injury. DOMS research is then cited by, for example, sports injury review writers, who have their work published in our sport journals and perhaps news papers. These reviewers usually don't know anything about homeopathy but are researching its effectiveness on 'sports injuries'. They find and report with negative results for AM under this category which they accept at face value due to their ignorance of homeopathic principles and in this way the myth that homeopathy does not work is perpetuated.

My practical experience

My experience is very different when using Homeopathic AM. Firstly I would like to confirm that, as with any homeopathic remedy, it should not be given unless there are the gilding symptoms being presented by the individual. All the studies above involved giving the remedy without symptoms, before, during and after the exercise, which I would argue is the same as giving penicillin without due cause. When I have given AM for DOMS in the time period when the extreme stiffness is actually present in the body about two days after the heavy training I have seen good results, especially if it can be taken before a night's sleep.

For acute injuries where there is clearly the tearing of bodily tissues resulting in the release of the associated biochemical reactions, studies have shown positive results when using AM creams and/or AM ingested dilution. If the two are used together the results seems to be more effective. As distinct from the unsuccessful studies these results involved using AM when there are actual guiding symptoms or the relevant chemistry was present. Treatment with AM 200 CH, administered alone or associated with the selected AM creams, Artrin and Ruticelit, was shown to be superior to the nonsteroidal anti-

inflammatory drug, through its effect on the sensation of pain and on the size of inflammatory oedema, in the studied grade II ankle sprains 2.⁵

My experience

When I have used AM at the point of the injury event and when the relevant associated swelling begins I have seen positive results. What I have learnt is that the skill of matching the severity of the injury to the correct dose makes all the difference, and when the dose is correct the comfort levels and stress levels of the patient reduce dramatically. Over a couple of days with repeated AM doses the swelling reduces very quickly and then a different remedy is often required. It is becoming obvious to homeopathic researchers that there is a problem for homeopathy when researched in the tight constraints of RCTs, the model does not normally transpose, mostly because we need to take symptoms before giving a remedy. Homeopathy differs from conventional medicine in many aspects. Little recognized to date is the unique, multidimensional nature of the response to homeopathic treatment.¹³ We take into consideration in very detailed way the individual's responses as they arise spontaneously and this guides the course of treatment uniquely. Making it very difficult to perform a controlled study that fits the conventional 'Golden standard' medical criteria for research, we simply cannot remove the individual patient from the decision making process.

Conclusion

When we start comparing the Biochemical releases of the DOMS research type of muscle strain to a laceration or contusion of a muscle or ligament we see a completely different biochemical reaction. Intercellular adhesion molecule (ICAM-1) plays an important role in the inflammatory process and immune response and is associated with not only injuries but many other inflammatory based diseases as well. When ICAM-1 molecule is present, current research in the area of nano-pharmacology is showing us that Homeopathic AM has a measurable effect. In the field when there is an injury with the type of inflammatory response that can be simply confirmed through visual indications like swelling of the injured joint/muscle, indications of internal bleeding and also the fact that the athletes ability to use the injured part becomes very reduced, often suddenly and with accompanying extreme pain I have found AM to be effect.

Unfortunately there are sports journal reviews that conclude that AM doesn't work for sports injuries. But when we look at the research they were citing it was research based on DOMS not on actual sprains and strains. In Table Two you will see research that has shown that AM does show positive results when compared to placebo and or conventional treatments for more serious injuries. This confirms Hahnemann's (2010/1812) statement AM is for injuries that involve severe contusions and lacerations of the fibers. The skill is in choosing the correct dose and this is based on the spontaneous symptoms expressed by the patient at the time.

Acknowledgments

None.

Conflicts of interest

The authors declare that there are no conflicts of interest.

Funding

None.

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