'S.E.E.D.' NEWS # 100 – 2017

Welcome to our 100th Newsletter.

Please note that the news and views expressed in our newsletters are not necessarily our own; we offer them to your critical faculty as to their usefulness.

If you have any news or views that you would like to share, please send them to us for publication.

You have received this Newsletter because you have shown an interest in what we do. If you would like to be removed from our e-mail list, let us know your name and e-mail address and it shall be done!

Best wishes,

Jane Rose

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January – March 2017 'In-House' Courses

Please note that a lot of The S.E.E.D. Institute Courses are available as Distance-learning, which Students have found very valuable. Please ask for details.

Please ask for further details if you are interested in any course.

Courses are run in **Ash, Surrey (near Aldershot)** (40 miles south of London and easily accessible by train from Waterloo or from Heathrow and Gatwick Airports) and **Stour Row, Shaftesbury, Dorset** (easily accessible by road and rail).

Please 'click' on the appropriate link if you would like further details of any of the Courses.

BOOK REVIEWS

Aromatica

Author: Peter Holmes

ISBN: 9781848193031

An excellent book – recommended to add to the reference library of Aromatherapists and of value to the lay-person to broaden their knowledge of this therapy. The Author brings his experience as a medical herbalist to this book and this gives as added 'richness' to the work. The essential oil profiles have a section on Chinese medicine and functions which, very neatly, brings in a different dimension.

Chinese Massage Manual: A comprehensive, step-by-step introduction to the healing art of Tui-na.

Author: Sarah Pritchard

ISBN: 9780956293008

Any body-work therapist who has not yet investigated Tui-na is missing a valuable link in the healing process. This well presented, book takes you on a journey through the building blocks of the theory of Traditional Chinese Medicine, to commonly used Tui-na techniques and Qi Gong exercises, finishing with simple treatments for common ailments.

Aromatherapy, Massage and Relaxation in Cancer Care

Author: Edited by Ann Carter and Dr Peter A Mackereth

ISBN: 9781848192812

This evidence-based book is an invaluable tool for anyone working in the field of cancer-care. Chapter one starts with Cancer and its treatments providing a good grounding for those who have not worked in this field previously. This leads to chapters onto the dynamic nature of resilience and how to nurture this, working as a therapist, effective documentation and many chapters that the working therapist will find helps them in their quest to give support during potentially life-changing times. Of particular interest to Aromatherapists will be the sections on Aromasticks and malodour and the potential use of essential oils.

The Fundamentals of Acupuncture

Author: Nigel Ching

ISBN: 9781848193130

This textbook explains the basic foundations and principles of acupuncture and Chinese medicine. Recommend for all students of Chinese medicine as it is very 'readable' and moves with fluidity from point to point.

THE IMPORTANCE OF TOUCH WHEN WORKING WITH THE ELDERLY

Touch is the sense we least value in the 20th Century. People who are not touched enough suffer emotional deprivation. It has been reported that "the use of touch, as a form of non-verbal communication, alleviates anxiety in situations of stress through providing comfort, reassurance and support to patients with dementia" Kim, E. J. and Buschmann, M. T., 3 June 1999, The effect of expressive physical touch on patients with dementia, *International Journal of Nursing Studies* 36: 236.

Touch is a way of communicating, providing comfort and showing that someone is cared for. For those bound to the past, or unable to cope with the present (or the future), to hold and gently massage the hands is a way of providing security and a feeling of belonging.

Massage is an ideal way to put the emotionally gratifying power of touch back into life. When we touch another person, we stimulate an elaborate network of touch receptors - blood-corpuscles and nerve-endings - on and under the skin in the form of natural electrical charges. The sensitivity of the skin enables massage to be effective in relaxing the muscles and stimulating the blood and lymphatic flow.

All the benefits of massage are enhanced by the use of essential oils.

People are rarely touched in a loving and caring way.

The British have always been reserved, e.g. shaking hands, whilst many other nations use a kiss and/or an embrace. Recently, even shaking hands has been replaced by a smile - or a glare - or nothing!

One of our Tutors was visiting a client who was dying. She was told that the client was "so far gone" that he would not know her. She put a hand on the Client's forehead, as she had done many times in the previous three years. From very far away, through his morphine-drip and sedatives, he said, "Hello Su, I knew you'd come".

Touch is a healer. It must, however, be appropriate. Misused touch can cause mental, emotional and physical pain. Therapeutic touch causes pleasure and eases the agony of disease.

From: Mosby's Fundamentals of Therapeutic Massage**,** Second Edition, Sandy Fritz, © 2000.

Professional Classifications of Touch:

Hostile or aggressive touch. *Hostile or aggressive touch occurs when a potential for conflict or power-struggle exists. Professionals who use touch need to be aware of the underlying energy directed toward the client to prevent this intention in the touch. The obvious is easy: if you are angry with a client, it is best not to touch at that moment and vice versa; if a client is angry with you, it is best not to touch until the energy changes. A more subtle aspect is the undercurrent of conflict. Say, for example, that the client is late for the appointment, or the practitioner is hurried or angry about something at home and inadvertently is more aggressive during the massage than necessary.*

The perception of holding power over another underlies hostile or aggressive touch. Careful attention must be paid to this idea of power in the therapeutic relationship between the professional and the client. In the professional relationship, a power difference between the professional and the client exists simply because of the knowledge base that defines the profession. Knowledge is power, and most of the time the professional knows more about the service rendered than the client does. In body therapies, often the client's physical position creates an environment that fosters a power differential. Clients usually lie down or are seated and the professional is physically above the client, generating the impression of authority.

Touching is an action-energy focused outside the body that has the ability to exert power. When a person is touched, energy is received and internalised; it is not overtly an act of exerting power. Although the ability to receive touch is powerful, the difference in the power base between those who give and those who receive touch must be considered. This interplays with the appropriateness or inappropriateness of touch. Careful attention must be paid during professional touch if the issue of power is to be managed appropriately.

Erotic or sexual touch. *The intention of erotic or sexual touch is sexual arousal and expression. The issue of erotic touch cannot be side-stepped in the study of massage therapy or any other body-oriented treatment in which touch is a primary aspect of the therapy. Complex physiologic, mental and spiritual aspects, both of the client and the practitioner, influence the ideas of erotic touch.*

Hippocrates is reported to have said, "The way to health is to have an aromatic bath and a scented massage every day".

We are sentient beings and therefore find it easy to respond to the sensations of touch: indeed this experience can help us to understand ourselves and others.

HEALTH ASSESSMENT TECHNIQUES – A SAMPLE

EYE-ANALYSIS

Eyes show physical, mental and spiritual changes and are said to be the 'windows to the soul'.

Colour around the Eye

Clear, natural skin

Shows physical and mental health.

Dark

Due to excessive yang resulting in kidney and adrenal/gonad exhaustion

Reddish

Blood capillaries expanded from an excess of yin food and drink resulting in the heart and circulation overworking.

Purplish

A more advanced stage of the previous colour caused mainly by consumption of drugs, chemicals and refined sugars resulting in nervous and circulatory systems disorder. Hallucinations and cold hands and feet are common.

Yellowish

Liver and gallbladder over-functioning though can also show a temporary disorder of the kidneys and excretory functions.

Greyish

Appears when kidneys, and sometimes lungs, malfunction due to excessive yang food intake. Also an indication that the endocrine and lymph systems are under strain. Can be caused by an imbalance of minerals in the bloodstream from food, drink or environmental air conditions.

Pimples around the eyes

Pimples are an attempt, by the body, to eliminate foods consumed in excess. The kidneys, excretory system, spleen and lymphatic system will all be temporarily affected. With pimples that itch and are inflamed the elimination is faster than non itching/non inflamed.

Above the eyelid and below eyebrows

Elimination of mucous, fat and oil from excessive oil, sugar and dairy products in diet. Yellow pimples indicate that the diet includes poultry

On eyelid

Elimination of protein, fat and sugar from excessive animal food and fruit. Oily fish, oranges or other fruits & juices often produce reddish pimples near the corner of the eyelid.

Below lower eyelid

Elimination of protein and sugar from excessive fatty meat and sugar or fruit juice. Whitish-yellow pimples show consumption of eggs, dairy products and animal fats.

The pink area inside the lower eyelid

Light pink with smooth surface

Indicates healthy, normal circulation.

Red with expanded capillaries

Indicates HBP or excretory disorders due to excessive yin foods - liquids, alcohol, fruits, juices and sugars. Also indicates inflammation of the circulatory system and nervousness.

Whitish

Indicates an anaemic condition caused by excessive yin foods though can sometimes be caused by excessive yang food including salt and roasted or baked flour products. Often leukaemia patients show this colour.

Reddish-yellow

Indicates excessive yang foods including poultry, eggs and dairy products as well as excessive yin foods including sugar and fruits. Also indicates disorders in the heart, circulatory system and liver, spleen and pancreas malfunctions

REIKI AND BREAST CANCER

This article appeared in The Reiki Times, the official magazine of the International Association of Reiki Professionals. *Sources: http://news.pennmedicine.org/inside/2014/01/reiki-a-light-*

touch-that-helps-cancer-patients.html, http://www.cancer.org/treatment/treatmentsandsideeffects/complementaryandalternativemedicine/manualhealingandphysicaltouc h/reiki, http://www.wcrf.org/int/cancer-facts-figures/data-specific-cancers/breast- cancer-statistics

A breast cancer diagnosis is one of the most difficult situations someone can face. The pain, stress and trauma involved are unparalleled and patients dealing with this condition need all of the comfort and support they can get. Recently, many breast cancer patients have become interested in the idea of using Reiki to help with the symptoms of this condition, the side effects of cancer treatment and the stress that accompanies breast cancer. In fact, researchers have even conducted studies to identify and evaluate the effects of Reiki on patients with breast cancer. These results of these studies indicate that Reiki may be a valuable component of a breast cancer patient's treatment plan.

Dealing with Breast Cancer

Breast cancer is one of the most pervasive conditions affecting women around the world. It occurs when a cancerous tumour develops in the breast tissues. As the condition progresses, cancer can spread to other locations in the body. If the condition is left untreated or doesn't respond to treatment, it can be fatal.

The incidence of breast cancer throughout the world keeps increasing every year, with nearly 2 million cases diagnosed annually. Although many cases of breast cancer can be cured, this disease still claims the lives of more than 500,000 women in the world each year. Even those women who are able to overcome their disease must undergo a variety of difficult treatments to remove and/or kill the cancer cells, including surgery, chemotherapy, radiation and more. During and after treatment, women must deal with pain, anxiety, fear and depression.

What is Reiki?

The word "Reiki" translates to "universal life energy." The technique was developed in Japan and hinges on the belief that pain, illness and other negative conditions occur because spiritual energy pathways in the body are either disturbed or blocked. During a Reiki session, the practitioner encourages the client's energy to flow freely throughout the body. Once this energy is flowing properly, pain sensations decrease and the body can begin to heal itself more effectively.

Reiki is non-invasive and involves only light touch. During a Reiki session, the practitioner will place his or her hands in up to 15 specific positions above the client's body. He or she may also touch the patient lightly. Each hand position will be held for up to five minutes at a time. The entire session will last for approximately one hour.

Benefits of Reiki for Breast Cancer Patients

Although Reiki is not a substitute for traditional cancer treatment, it may provide a number of benefits for patients with breast cancer. This technique can be used for patients who have just learned of their diagnosis, patients who are already involved in treatment protocols and patients who are recovering from breast cancer. Some of the benefits of Reiki treatment for individuals with breast cancer may include:

Reduction in sensations of pain.

Pain is one of the hallmarks of cancer, whether it is experienced during treatment or as the disease progresses. Regardless of the reason for the pain, Reiki may reduce these sensations, making patients more comfortable as they deal with their disease.

Improved mood.

Many patients with breast cancer experience depression and anxiety related to their illness. Reiki treatments may improve the mood of a cancer patient, which enhances his or her quality of life. Alleviating stress and anxiety may also improve the patient's outlook, thus making him or her more proactive and willing to comply with other treatment recommendations.

Less stress.

Nothing is more stressful than dealing with something as serious as breast cancer. Reiki may reduce stress levels so that cancer patients can relax and focus on getting better.

Better quality of sleep.

In patients that experience a state of relaxation after Reiki sessions, the quality of sleep may improve. This is beneficial to breast cancer patients because it improves their mood and facilitates the body's ability to heal itself.

In addition, because Reiki is completely non-invasive and causes virtually no side effects, it is appropriate for most breast cancer patients. Reiki won't interfere with any other cancer treatments, either, so it can be used safely at any stage of treatment. Even if a breast cancer patient has never participated in a Reiki session before, he or she can begin treatment at any time.

Research Supports the Effectiveness of Reiki

Recent research studies support the effectiveness of Reiki in patients dealing with all types of cancer, including breast cancer. For example, according to Penn medicine, the Abramson Cancer Center has released reports showing that, when combined with traditional treatments, the use of Reiki can reduce stress levels, alleviate anxiety, improve relaxation and reduce perceptions of pain in patients with cancer. Likewise, according to the American Cancer Society, one research study showed that cancer patients participating in Reiki sessions were less likely to experience pain than those who were not participating in Reiki sessions.

Anecdotal evidence provides additional support for Reiki's benefits. Patients have reported feeling more relaxed after Reiki treatments, even in the later stages of cancer. Patients have also reported feeling more mentally and emotionally balanced because of Reiki treatments. Some patients have even said that participating in Reiki treatments reduced the side effects they experienced because of cancer treatment, including nausea and vomiting.

FIRST AID: Understanding Basic Vital Signs

http://www.realfirstaid.co.uk/first-aid-medical-articles/

Is the casualty "*Big Sick*" or "*Little Sick*"?

Examining the casualty's Vital Signs allows us to assess the casualty's state of health accurately and objectively. The Golden Rule is:

"If it's not normal, it's bad!"

The above statement may sound inaccurate or even childish but whether you are a novice First Aider or a Consultant Anaesthetist, the above statement is always true. This is what we need to remember when assessing the casualty.

In this article we will look at how we can rapidly assess a casualty's state of health, at a basic level, with no reliance on medical terminology, equipment or numbers.

The Common Mistake

Humans are hardwired to react to the sight of blood and generally judge casualties based on their injury rather than their vital signs.

For example, which would you say are *Big Sick* or *Little Sick*?

Most people would gauge the injuries on the right as more severe - *Big Sick* - and the injuries on the left as minor - *Little Sick*. Some injuries can be more serious than others but injuries alone do not tell you if the casualty is *Big Sick* or *Little Sick*. Injuries alone cannot tell you if a person is going to live or die or if so, when. Injuries can only tell you that someone has an injury.

If we look at two casualties – one clutching his chest and the other with a half closed eye and blood pouring down his face - which casualty is *Big Sick*?

Hopefully most people would recognize the casualty displaying chest pain as being *Big Sick*. Even though the casualty on the right has a nasty injury and there is plenty of blood, there is nothing to suggest that the casualty is going to die any time soon. He is *Little Sick*.

This is worth remembering - while we judge injuries based on the amount of blood, the bruising or the shape of the limb, we cannot do the same with casualties:

- Some injuries can look horrific but be relatively minor. We know that superficial head injuries bleed a lot but the wound may be very small and will easily stop bleeding with direct pressure.
- Some casualties may have no obvious injuries but the situation can be life threatening.

So how do we judge a casualty who has no visible injury but they tell you the feel 'unwell'? How do we judge a casualty who is unconscious or uncommunicative?

The answer is to assess their four **Basic Vital Signs**.

Level of Consciousness

Another common mistake is simply to ask *Polar Questions*; 'Yes / No' questions or questions which can only be answered with one of two answers.

When we want to know about the casualty's Level of Consciousness (LoC) we tend to ask are they '*conscious*' or '*unconscious*'. This is not enough.

If you are reading this you are more than conscious, you are fully **ALERT** - and that is different to simply being conscious: Someone who is fully **ALERT**:

- Knows where they are
- Knows who they are
- Knows roughly what time of day it is
- Knows the date
- Can speak clearly
- Can give appropriate answers

Anyone who is not **ALERT** is unconscious.

But unconsciousness is not like turning off a switch; there are various shades of unconsciousness. If they are not **ALERT**, they are unconscious but can they still respond to **VOICE**?

- Don't ask them a question like "*Can you hear me?*" They are unconscious and speaking requires one of the highest cognitive functions we have. Tell them what to do - "*Open your eyes!*"
- Don't suggest it in soothing, soporific tones - you want a response so try and initiate one: Shout "*Open your eyes!*" in both ears, loud!
- Remember, you are looking for ANY response. They might open their eyes fully or they might groan, flinch or move away from the sound. Any response would indicate they are unconscious, but responsive to voice.

If they do not respond to **VOICE**, do they respond to **PAIN**?

Again, your assessment needs to be effective - pinching the ear is not effect. Unfortunately, to ascertain if your casualty is able to respond to pain, you must administer genuine pain - BUT - it must be appropriate.

- Pinch the trapezius - the muscle along the top of the shoulder, at the fleshiest bit, between your finger and thumb, HARD.
- Look at the casualty's face; their response maybe overt or it may be subtle but any response is a response.
- There are other tests for pain - some are gentle and therefore ineffective, others are brutal and therefore unethical, this is an effective, appropriate assessment.
- Obviously, if your casualty is responding to **VOICE**, do not check to see if they respond to **PAIN**!

If they do not respond to **PAIN**, they are Unconscious and **UNRESPONSIVE**.

Your casualty can now be categorised as follows - A,V, P or U:

Conscious and Alert or

Unconscious but responding to Voice or

Unconscious but responding to Pain or

Unconscious and Unresponsive

REMEMBER: You do not want to know IF they are unconscious, you want to know HOW unconscious

These are the phrases you will use when contacting help and handing over when help arrives - it may not mean much to you but it means a lot to the person you are telling.

What about the drunk, staggering around the town centre at 2am, hugging lamp posts and singing to the moon: He is upright, his eyes are open. Is he *conscious*?

A better question is 'Is he **ALERT**?' Does he know where he is? Does he know what time it is? Can he give you an appropriate answer? Is he speaking clearly?

No. So he must be....*Unconscious*?

Yes. When you shout over to him *"Hey! Are you alright?*" And he swings around, almost loosing balance, all he has done is responded to your voice.

This casualty is Unconscious but responding to **VOICE**.

In summary, Consciousness has nothing to do with whether their eyes are open or closed or whether they are standing up or lying down. Their LoC is determined by their ability to respond.

Breathing

In the same way that people tend to simply ask '*Are they conscious?*' people will also ask '*Are they breathing*?' These Yes/No questions are not enough:

REMEMBER: You do not want to know IF they are breathing, you want to know HOW they are breathing.

RATE - Is it too fast or too slow?

RHYTHM - Is it irregular?

DEPTH - How much air is moving? Is it *shallow / light / weak* or is it *deep / heavy / strong?*

NOISE - Breathing should be silent. Are they Wheezing? Gurgling? Rasping?

None of these are normal. All of these are bad. Anyone whose breathing is not normal is *Big Sick*.

Isn't all of this a bit pedantic?

Is the casualty Alert? No, and that's not normal, that's bad.

Is the casualty Breathing? Yes. But it's not normal, that's bad.

This is what differentiates *Big Sick* from *Little Sick*; because the casualty's Vital Signs aren't normal, that's bad, this casualty is Big Sick. We don't necessarily know what is wrong with him at this stage but we know he is a serious casualty.

The reason we have to look for, notice and record the description of how unconscious the casualty is and how they are breathing is also for when we send for help.

When we contact help - whether it is the emergency services, the office or base camp - people will ask simple questions.

An experienced emergency services call handler will continue to ask more probing questions but we cannot guarantee that everyone we contact will have that ability. If we are relaying information to the Emergency Services via a 'runner' we need to ensure the runner can answer questions appropriately.

Colour

Skin colour is another obvious, intuitive Vital Sign; we all judge - consciously or not - an individual's skin colour; we will notice when someone looks pale or flushed. We can tell which one of the passengers is looking sea sick!

Most changes to skin colour are intuitive:

- **Pale** - Blood is moving away from the skin, typically to the core, to protect us when we are cold loosing blood or short of oxygen.
- **Blue** - If the cold, blood loss or lack of oxygen is not resolved, we eventually go blue, at the extremities first (*peripheral cyanosis*) followed by blueness around the mouth and eyelids *(central cyanosis*). This is not normal. This is Bad!
- **Red** - blood is moving towards the skin, usually to help us cool. If the person has a history of exercise and is in a hot climate this would be normal. This would be little sick. If the casualty is sat at their desk in an air conditioned office but is hot and red, this is not normal, this is bad. This is *Big Sick.*
- **Yellow** - Jaundice, for example, can have an effect of skin colour due to a build up of bilirubin which stains the blood an orangey colour, which appears yellow through the skin.
- **Green** - Do people go green? Who knows, but you can quite accurately tell when someone is going to be sick just by the look of them.

Ethnicity

Changes in skin colour are most noticeable in Caucasian skin because the skin is contains less pigmentation making it almost translucent, a bit like grease proof paper (if you have ever peeled off the flap of skin left over from a blister). We are able to see blood through the skin and how it is changing - whether it is moving close to the surface, further away or if there is a stain to it.

In casualties with strong ethnicities, this becomes more difficult as the greater amount of pigmentation in the skin masks the changes we would otherwise see.

Whilst it can be difficult to notice changes in skin colour when dealing with people of different ethnicities, it is not impossible:

We are all pale in the same places; everyone has pink lips and finger nails which will go pale or blue.

Colour is closely associated with temperate - blue is cold, red is hot. This is a universal.

Jaundice will also reveal itself in staining the sclera, the 'white' of the eye.

While it can be harder to notice abnormal skin colours in strangers because you do not have a normal baseline reference, we are able to notice changes in the skin colour of people we know because, regardless of ethnicity, we know what normal is for them.

Temperature

So you all remember that the core temperature of the human body is 37°C? Or something like that? That's useful but mainly for Pub Quizzes. To measure someone's temperature you need a thermometer and if you don't have a thermometer knowing this number is useless.

Casting you're mind back to when you were a little boy or little girl, you Mum would usually measure your temperature by feeling your forehead with her hand. And we know that Mums are always right.

If your casualty feels hot, they are hot. If your casualty feels cold, they are cold. All we have to ask is *"Is it normal?"*

Is it normal for:

- The environmental temperature
- Their levels of activity
- Their clothing

Summary

- It is the Vital Signs that tell us if the casualty is *Big Sick* or *Little Sick* and all we have to ask is *"Are they normal?"*
- A casualty may have horrific injuries but if they are Alert, breathing normally, with normal skin colour and at a normal temperature, they are *Little Sick*. They are not going to die any time soon. And that is reassuring because while the injuries may be disturbing we know we have plenty of time.
- A casualty may have no injuries at all but if they have a reduced level of consciousness, their breathing is not normal, their skin colour has changed or they are not a normal temperature, they are *Big Sick*. And this is important because it prompts us to act even though there is no obvious injury.
- If we monitor the Vital Signs over time we will notice changes. This may reveal if the casualty is improving, deteriorating or stable.

ESSENTIAL OIL RESEARCH

In each Newsletter we will focus on available research/studies for one plant. These references have been sent in by Aromatherapy Students and have not been verified. If you are unfamiliar with Bay essential oil check the contra-indications before using as Bay is considered an aggressive essential oil.

BAY (Pimenta racemosa)

ANTI-BACTERIAL

Antibacterial activity of essential oils of Pimenta racemosa var. terebinthina and Pimenta racemosa var. grisea.

Saenz MT, Tornos MP, Alvarez A, Fernandez MA, García MD. Fitoterapia. 2004 Sep;75(6):599-602.

Source: Laboratory of Pharmacology, Faculty of Pharmacy, C/Profesor García González s/n, University of Sevilla, 41012-Sevilla, Spain. mtsaenz@us.es PMID:15351118[PubMed – indexed for MEDLINE] http://www.ncbi.nlm.nih.gov/pubmed/15351118 taken 18/10/12

Abstract

The antibacterial activity of essential oils of Pimenta racemosa var. terebinthina and P. racemosa var. grisea was determined against Gram (+) and Gram (-) bacteria. P. racemosa var. grisea demonstrated a more pronounced activity. These data would indicate the potential usefulness of the variety grisea as a microbiostatic, antiseptic or disinfectant agent.

ANTI-INFLAMMATORY

Anti-inflammatory effect of Pimenta racemosa var. ozua and isolation of the triterpene lupeol.

Fernandez et al, 2001*(http://www.ncbi.nlm.nih.gov/pubmed/11421264 date accessed 6/8/16)*

Pimenta racemosa var. ozua (Myrtaceae) is a tropical plant, used in different inflammatory processes by the folk medicine of the Caribbean region. From the methanol extract of the leaves a terpenic compound identified as lupeol has been isolated for the first time in this species. The anti-inflammatory activity of the extract has been evaluated against two experimental models of acute inflammation: paw edema in rats, using carrageenan or dextran as phlogogen agents, and ear edema in mice, inducing the inflammation with 12-o-tetradecanoylphorbol acetate (TPA). These results show that the methanol extract from the leaves of Pimenta racemosa var. ozua, is effective against acute inflammation processes, by oral route and when topically applied. The anti-inflammatory behavior of the extract was similar to that exhibited by the selective cyclo-oxygenase inhibitor, indomethacin. On the other hand, the reduction of MPO activity shows that the action mechanism is clearly related with the neutrophil migration.

Anti inflammatory activity identified in the terpenic compound 'lupeol' found in pimento racemosa. Anti inflammatory activity tested against 2 models of acute inflammation;

(i) Paw enema in rats using carrgeenan as phogogen agent
(ii) Ear oedema in mice.

These results show that the methanol extract from the leaves of Pimenta racemosa var. ozua, is effective against acute inflammation processes, by oral route and when topically applied.

Antinociceptive and anti-inflammatory effect of the aqueous extract from leaves of Pimenta racemosa var. ozua (Mirtaceae).

García MD, Fernández MA, Alvarez A, Saenz MT. J Ethnopharmacol. 2004 Mar;91(1):69-73. PMID: 15036471 [PubMed – indexed for MEDLINE] http://www.ncbi.nlm.nih.gov/pubmed/15036471 taken 18/10/12

Source: Departamento de Farmacología, Facultad de Farmacia, Universidad de Sevilla, C/Profesor García González s/n, 41012, Sevilla, Spain.

Abstract

The leaves of Pimenta racemosa var. ozua (Urban & Ekman) Landrum L. (Myrtaceae) are used against the pain and the inflammation in popular medicine of the Caribe area. In the present work, the antinociceptive, anti-inflammatory effect, and acute toxicity of the aqueous extract from leaves of Pimenta racemosa have been investigated. The antinociceptive action was assayed in several experimental models in mice: acetic acid, formalin, and hot plate tests. The aqueous extract (125 and 250 mg/kg) significantly and in a dose-dependent manner reduced the nociception induced by the acetic acid intraperitoneal injection ($P<0.001$). In the formalin test, the extract also significantly reduced the painful stimulus in both phases of the test ($P<0.001$). On the contrary, the extract neither significantly increased the latency time of licking nor jumping in the hot plate test. In the anti-inflammatory study, the plant also showed an interesting effect. Aqueous extract (125 and 250 mg/kg) orally administered, significantly reduced the carrageenan-induced edema in rat paw at 1, 3, and 5 h ($P<0.001$). In the TPA test the edema was dose-dependent and significantly reduced by the extract (0.5, 1, and 3 mg per ear) when it was topically applied ($P<0.01$; $P<0.001$). The levels of myeloperoxidase enzyme also were reduced in the inflamed tissue by the extract. Acute toxicity also was investigated and the results indicated a moderate toxicity (LD50: 287 +/- 12.9 mg residue/kg; 1.854 +/- 0.083 g plant/kg). These results revealed that the extract from leaves of Pimenta racemosa var. ozua exerts an important antinociceptive activity, associated to an anti-inflammatory effect which to appear be markedly influenced by the inhibition of neutrophil migration into inflamed tissue and that lack of toxic effects at usual doses.

ANTI-INFLAMMATORY/ ANTI-MICROBIAL

Guy Alain Alitonon,, Jean Pierre Noudogbessi Philippe Sessou AretasTonouhewa Félicien Avlessi Chantal Menut Dominique C. K. Sohounhlouehttp://www.innspub.net/wp-content/uploads/file/IJB-V2No9-p1-12.pdf Accessed 07/12/13

Abstract

The aim of the present work was to assess potential antiradical, antiinflammatory and antimicrobial activities of essentials oils of Pimenta racemosa from Benin. The chemical compositions of the essential oils obtained by hydrodistillation from fresh leaves of six samples of Pimenta racemosa (Mill.) J. W. Moore. (Myrtaceae) growing wild in Benin were analyzed by GC and GC/MS and showed twenty four compounds identified and quantified in the essential oils with eugenol(45.2% -52.7%), myrcene (25.1% - 29.4%) chavicol (7.1% -9.3%), limonene (3.0% -4.0%), 1,8-cineole (2.1% -3.2%) as major compounds. The evaluation of biological activities of these oilshas shown a low anti-inflammatory activity and high antiradical, acaricidal against Amblyomma variegatum and antimicrobial activities against both bacteria and fungi. Fractionation of an eugenol rich sample allowed the identification of the bioactive fractions and their contribution to the efficiency of the whole extract. This study suggests that P. racemosa essential oils may be useful in the food industry where the antioxidants are used to delay the degradation of fatty substances.

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E-COLI

To quantify the antibacterial properties of five essential oils (EO) on a non-toxigenic strain of *Escherichia coli* O157:H7 in the presence and absence of a stabilizer and an emulsifier and at three different temperatures.

http://onlinelibrary.wiley.com/doi/10.1046/j.1472-765X.2003.01285.x/abstract;jsessionid=D37FBA3BDDB0A7E11F4B0B1598A1D01E.d03t02 taken 18/10/12

Methods and Results: Five Eos known to exhibit antibacterial properties were screened by disc diffusion assay and the most active were selected for further study in microdilution colorimetric assays. Oregano (*Origanum vulgare*) and thyme (*Thymus vulgaris*; light and red varieties) EO had the strongest bacteriostatic and bactericidal properties, followed by bay (*Pimenta racemosa*) and clove bud (*Eugenia caryophyllata* synonym: *Syzygium aromaticum*) EO. Oregano oil was colicidal at 625 μl l^{-1} at 10, 20 and 37°C. The addition of 0·05% (w/v) agar as stabilizer reinforced the antibacterial properties, particularly at 10°C, whereas 0·25% (w/v) lecithin reduced antibacterial activity. Scanning electron micrographs showed extensive morphological changes to treated cells.

Conclusions: Oregano and thyme EO possess significant *in vitro* colicidal and colistatic properties, which are exhibited in a broad temperature range and substantially improved by the addition of agar as stabilizer. Bay and clove bud EO are less active. Lecithin diminished antibacterial properties. The bactericidal concentration of oregano EO irreversibly damaged *E. coli* O157:H7 cells within 1 min.

Significance and Impact of the Study: Oregano and light thyme EO, particularly when enhanced by agar stabilizer, may be effective in reducing the number or preventing the growth of *E. coli* O157:H7 in foods.

INSECTICIDE

Mosquito larvicidal activity of aromatic medicinal plant oils against Aedes aegypti and Culex pipiens pallens

Lee H.S., 2006,. (http://www.ncbi.nlm.nih.gov/pubmed/17019775 date accessed 6/8/16)

Larvicidal activity of essential oils derived from 11 aromatic medicinal plants against early 4th-stage larvae of Aedes aegypti and Culex pipiens pallens was tested in the laboratory. At 100 ppm, the essential oils of all plants caused 100% mortality against Ae. aegypti and Cx. pipiens pallens. At 25 ppm, the essential oils of Citrus bergamia, Cuminum myrrha, and Pimenta racemosa caused 100% mortality against larvae of Ae. aegypti and Cx. pipiens pallens. The oil of C. begamia caused 32.5% and 24.5% mortality against Ae. aegypti and Cx. pipiens pallens at 12.5 ppm, but 24.2% and 0% mortality against Ae. aegypti and Cx. pipiens pallens at 6.25 ppm, respectively. The oil of P. racemosa caused 52.3% and 38.5% mortality against Ae. aegypti and Cx. pipiens pallens at 12.5 ppm, but 32.2% and 0% mortality against Ae. aegypti and Cx. pipiens pallens at 6.25 ppm, respectively. The larvicidal activity of oils of C. bergamia, C. myrrha, and P. racemosa was significantly reduced when used at 6.25 ppm. These plants warrant further studies as possible agents for mosquito control.

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