

Case History of Infected Eczema Treated with Essential Oils

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Abstract

The following case history details a treatment with essential oils of an infected eczematous lesion over the author's own right calf. The use of tea tree, lemon, bergamot, lavender and niaouli resulted in demonstrable healing after six days. Lavender and tea tree had an immediate effect on itchiness. Detailed and controlled studies are required to confirm the role of these essential oils in the treatment of infected chronic eczema.

Case history

A typically itchy, erythematous, scaly patch of eczema has been present for five years positioned just below a varicose vein on one calf. The causes may be attributed to stress, genetic predisposition and the varicosity. The author is vegetarian and daily consumes over one litre of water with a correspondingly low alcohol and low caffeine fluid intake. Former treatments have included the application of a topical steroidal preparation (Betnovate); homeopathic remedies; and avoidance of wheat and dairy products following the advice of a kinesiologist. Each provided temporary relief. The chronic condition was superceded by an acute episode of infection over the area. Essential oils were the mode of treatment as an alternative to antibiotics.

Five essential oils were chosen. The rationale for their use is illustrated in Table 1 below (1, 2). Table 2 details the sequential account of the symptoms in conjunction with the essential oil administration. Figures 1 and 2 provide a photographic comparison of the healing.

To combat possible microbial contamination four essential oils were applied by means of a spray from the second to the sixth day. A daily bath in essential oils was used from the fourth to the sixth day to reduce general stress and tension, while soaking the entire body in highly antiseptic essential oils to combat infection. The leg was not submerged, however, to avoid water contamination to the affected area. On the

Table 1. The choice of essential oils with botanical source and rationale for use

Essential oils used	Botanical family	Rationale for use
Tea tree (organic) Melaleuca alternifolia Australia	Myrtaceae	One of the most powerful anti-bacterial, anti-viral and anti-fungal essential oils; immunostimulant
Lemon Citrus limonum Argentina	Rutaceae	Antiseptic; anti-bacterial; astringent; circulatory tonic; skin healer; white corpuscle stimulant
Bergamot Citrus aurantium bergamia Ivory Coast	Rutaceae	Antiseptic; antidepressant; heals skin wounds and sores
Niaouli Melaleuca viridiflora Vietnam	Myrtaceae	Antiseptic; balsamic or soothing skin agent; skin healer
Lavender (high altitude) Lavandula angustifolia France	Lamiaceae	Antiseptic; antimicrobial; antidepressant; calms nervous activity; increases local blood circulation; heals skin wounds and sores

(Lawless 1996; Purple Flame Aromatics 1999)

Table 2. Sequential account of symptoms of infection with types of treatment

Day	Condition of right leg	General Health	Essential oils and amounts in British Standard drops	Mode of application and number of administrations per day
Day 1	Calf enlarged and sore. Suppurating white pustules seen over eczematous area. Red, inflamed area, hotter than surrounding skin.	Felt unwell: general aching particularly in right groin and lower back. (Applied ice pack to affected area. Ingested a Paracetamol and Vitamin C proprietary preparation)		
Day 2	Calf sore and 'prickling' but swelling had diminished.	Enlarged lymph gland in right groin	<ul style="list-style-type: none"> • Spray mixture: Tea tree 7 drops Lemon 3 drops Bergamot 3 drops Niaouli 3 drops 	† 50mls tap water with the essential oils in spray bottle, applied once. Allowed to dry. Covered with Melolin PFA dressing and gauze bandage applied
Day 3	White scales formed. Area was white and not so inflamed.	Enlarged lymph node persists (Gently peeled off loose scales making area intensely itchy)		† Spray × 2 and dressed as above
Day 4	Leg was throbbing. Alternately sore then itchy. More inflamed again and area sticks to dressing.	Groin tender Temperature 37.3°C	<ul style="list-style-type: none"> • Bath mixture: Lavender 3 drops Tea Tree 3 drops 	† Spray × 2 with dressing † Evening bath to body but leg not submerged
Day 5	Inflamed area has extended below infection down to ankle. Wound dryer and less sore but still a little itchy and throbbled.			† Spray × 1 with dressing † Evening bath as above
Day 6	Wound was too wet. Area exposed and wound dried really well. Itchiness increasing with white scales forming and flaking off. New red skin appeared underneath for first time		<ul style="list-style-type: none"> • Neat tea tree 	† Spray × 1. Left area exposed † Evening bath as above † Dabbed over wound using cotton wool bud
Day 7	Unbearably itchy. More white patches flaking off with clean red skin underneath. Tea tree stopped the irritation.	Groin just a dull ache now.		† Dabbed to wound
Day 8	Not itchy all day. All flakiness had gone. Scabs still present.		<ul style="list-style-type: none"> • Neat lavender 	† Dabbed to wound × 2
Day 9	Day 9 Not itchy. Scabs falling off.			† Dabbed to wound
Day 10	Dabbing wound takes any itch away			† Dabbed to wound

sixth and seventh day, the application of neat (or undiluted) tea tree greatly reduced the skin irritation. Neat lavender was used from the eighth to the tenth day once the infection subsided to encourage further skin healing.

Essential oils were obtained from Purple Flame Aromatherapy, St John's Spinney, Gun Hill, New Arley, Warwickshire, England CV7 8YP www.purpleflame.co.uk (2). The importance of using good quality, pure essential oils is vital to minimize any adverse associated symptoms and to ensure the desired therapeutic effect within the body.

Clinical Evidence

Eczema is a generic term for an inflammation of the skin associated in the acute stage with intense itching, serous exudation and plaque formation. In the subacute phase, the lesion may be less itchy with scaling accompanied by signs of excoriation. Chronic scratching may lead to an acute secondary bacterial infection,



Figure 1. Photograph of right calf on Day 2



Figure 2. Photograph of same calf on Day 11

typically characterized by the presence of honey-coloured crusting or weeping patches, cellulitis, erythema, pyrexia or the formation of pustules over the lesion. Lichenification and hyper-/hypopigmentation suggest the presence of a chronic eczematous condition (3) and (4).

The aetiology of eczema is often unclear and notoriously difficult to treat effectively: the emphasis often being on controlling the symptoms rather than a cure. Conventional treatments may include dietary advice; allergy testing; the liberal use of emollients; topical anti-histamine and corticosteroid drug preparations to suppress the condition with antibiotics to combat infections.

Unusual features

The treatment of an eczematous lesion with tea tree, lemon, bergamot, lavender and niaouli resulted in significant healing by Day 6. This may have occurred naturally despite treatment: leaving the wound exposed to the air certainly seemed to accelerate healing. However, the itchiness ceased immediately with neat application of tea tree and lavender. The new skin that formed appeared more moisturized than expected. No antibiotics or topical steroidal preparations were used during the treatment programme.

Lesson

The use of the essential oils may prove beneficial in the treatment of an infected, chronic eczematous lesion. Rigorously controlled studies are required to assess the true effectiveness of essential oil treatments. Prudent planning in designing research methodology is obligatory to ensure that a reductionist approach does not exclude either the complex causes of disease within each individual or the idiosyncratic, flexible nature of complementary therapy treatments.

References

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