

In each issue, UK General Practitioner Dr. James Kennedy considers a common medical problem and summarises the pragmatic evidence-based advice that can be offered to people wanting to look after themselves.

SELF-CARE OF INSECT BITES AND STINGS

INTRODUCTION

Most bites and stings resolve untreated or are managed with self-care remedies, and few are presented to healthcare professionals (HCPs). However many self-care treatments have a poor evidence base and some may actually make matters worse, while other simple pragmatic steps that could ease symptoms are not widely practised.

In this short paper I will review the self-care of the commonest types of insect bites or stings and their management. In some instances the management of the injury depends on the insect responsible. In this paper I cover only the commonest varieties encountered in the UK. However in other countries and climates more exotic species may require other treatment options and a reliable source of local information and expertise is essential.

The general public is now very aware of extreme reactions to e.g. bee stings and may need reassurance that the great majority of reactions are minor. Although rare, serious reactions to these incidents can occur and the warning symptoms and signs that indicate the need for HCP consultation will also be considered.

Key Words: Insect injury, bites, stings.

IMMEDIATE TREATMENT OF STINGS

In the immediate aftermath of a sting, particularly bee stings, the 'stinger' may be in situ and this should be removed. The natural instinct is to try to grip the stinger, with finger nails or tweezers, in order to pull it out. However gripping the stinger may squeeze more venom into the skin and should be avoided. Scraping the skin, with a fingernail or sharp edged implement is the best removal technique.

Traditional remedies for insect stings, particularly bee and wasp stings, abound and some have at least a superficial logic. For instance vinegar is recommended for wasp stings as the venom is alkaline and bicarbonate of soda has been used to treat bee stings because the venom is acidic. However the venom from wasp and bee stings is injected under the skin and after a few minutes spreads deep into the tissues, so topically applied liquids are very unlikely to neutralize them.

To help prevent infection, bathing the area is beneficial and applying ice will help to numb some of the pain and reduce any swelling. The instinct to scratch the site should be resisted since this will increase itching and swelling and increases the chances of infection.

If there are signs of an allergic response to the sting (e.g. breathing difficulties or systemic symptoms), then urgent medical attention is needed.

REMOVAL OF TICKS

Knowledge that ticks can transmit Lyme disease is now widespread and this, together with the rather unsettling idea of an insect burrowing into the skin, lead some to resort to extreme measures to remove them. The traditional methods employed to encourage ticks to 'back out' of their own accord (e.g. butter, petroleum jelly, alcohol, or holding a flame nearby) are ineffective, so physical removal is required.

Ticks should be removed with fine tweezers by gripping the insect close to the skin and pulling straight up. Twisting movements should be avoided as these increase the chance that mouthparts will be left in the skin. The person removing the tick should protect their skin from the tick fluids that may be released in the process. After removal the site of the tick bite should be cleaned and treated with antiseptic.

There is no need for people with tick bites to be tested for Lyme disease routinely, however if fever or a rash develop the person should be advised to get medical advice.

FOLLOW-UP TREATMENT OF BITES AND STINGS

Local Reactions – Small

Local pain and swelling is best treated with cold compresses and, if needed, oral pain killers (ibuprofen or paracetamol). Local itching can be intense and can be treated with topical cromatiton or low potency corticosteroids (hydrocortisone 1%) available OTC. In some cases itching may be severe enough to interfere with sleep and in such cases an oral sedating antihistamine (also available OTC) may be helpful at night.

Treatment with topical antihistamines is generally not recommended because they may cause local sensitization and they have limited efficacy. Calamine lotion is often used for itchy skin conditions but it is not effective in stings and the dried lotion on the skin may itself cause increased itching in some people.

It is uncommon for local reactions to progress to severe local reactions and in such cases HCP advice should be sought.

Local Reactions – Large

Sometimes local reactions to bites and stings can cause severe pain and swelling that extends beyond the immediate surroundings of the lesion. Occasionally, late reactions can occur after several hours with skin rash (urticaria) and /or a serum sickness –like reaction with joint swelling and pain.

In most cases such reactions can be treated symptomatically with:

- Simple analgesia for the pain (paracetamol or ibuprofen)
- An oral non-sedating antihistamine to help itching during the day and
- An additional sedating antihistamine at night if itching interferes with sleep

Severe local reactions may require medical attention, particularly if the local swelling is severe or systemic symptoms are prominent and in cases where symptoms progress from local to more severe. Any suggestion of breathing difficulties or hypotension requires urgent medical attention in order to exclude anaphylaxis.

LONG TERM FOLLOW-UP

Stories of individuals having fatal responses to insect stings have received widespread coverage in the media and people may be particularly concerned when they have suffered a severe reaction.

Referral is not needed when reactions have been mild and localized. However, if an insect bite or sting has caused a severe local reaction or generalized symptoms, then referral to an allergy clinic should be considered. Some allergy groups recommend referral to an allergy clinic if there is a large local skin reaction, with redness and swelling over 10cm in diameter. However local referral policies may differ depending on the availability of resources.

SUMMARY

Insect bites and stings can cause considerable pain and discomfort, and fear of these incidents can sometimes interfere with enjoyment of fine weather and alfresco dining. Most insect bites and stings cause only minor local symptoms and can be managed by simple topical treatments and oral analgesics.

Traditional beliefs and treatments for insect stings are often not based on evidence and may be of little benefit. It is worth advising people how best to remove stings and ticks, since poor technique can prolong suffering and increase the risk of infection.

Any systemic reactions that might indicate anaphylaxis (e.g. breathing difficulties) need urgent medical assistance. Large local reactions or local reactions that progress to more severe symptoms may also require medical advice and attention. However the majority of reactions to bites and stings are minor and confined to the immediate locality of the injury; in these cases simple self care is all that is needed.

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REFERENCES

NHS Clinical knowledge summary : Insect Bites and Stings

http://www.cks.nhs.uk/insect_bites_and_stings (accessed July 15th 2011)