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Kay qualified as a veterinary nurse in the early 1970s, but now spends most of her time working in the field of hedgehog rehabilitation on a charitable basis. She is a Trustee of the Hedgehog Helpline – a South Wales-based charity that she founded in the 1990s that takes in sick, injured and orphaned hedgehogs. Kay is also a Trustee of the British Hedgehog Preservation Society and the vice-chair and Trustee of the British Wildlife Rehabilitation Council.

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Figure 1: Some hedgehogs will be given a second chance by means of appropriate veterinary intervention



Care and treatment of hedgehogs (*Erinaceus europaeus*)

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ABSTRACT: In this article, the advantages of caring for wildlife in the practice are discussed. Euthanasia is a necessary tool when treating wildlife and suggestions are made as to the type of injuries where euthanasia would be the kindest option.

The majority of wildlife casualties are admitted showing hypothermia and dehydration – fly eggs and maggots may be present depending on the time of year. Some useful tips about feeding, bedding and housing are included and problems with underweight juveniles are also touched upon. The British Hedgehog Preservation Society is suggested as a contact point for further advice.

Introduction

The wildlife casualty presents a number of challenges – not least the economic issue of treating a patient for little or no reward; as well as the difficulties of handling a feral animal in a welfare-friendly manner. Given these challenges why should we help them?

The main reason would, of course, be our responsibility to ensure the highest standards of welfare for all the species that require our care. From the veterinary nurse's point of view we can also gain experience in the nursing care and husbandry of the more unusual species.

The veterinary treatment of wildlife casualties, however, requires a more pragmatic approach. Whilst an older, much-loved dog will still be loved if it ends up with a limp following surgery; for a wildlife patient, all repairs should leave it with 100 per cent mobility or its chances back in the wild will be compromised. If this cannot be guaranteed, then euthanasia must be considered as the most viable option for the patient.

First aid treatment

In many cases, intervention will involve euthanasia, because many hedgehogs will be too badly injured or ill to save. However, others – especially hoglets –

will be given a second chance by means of appropriate veterinary intervention (Figure 1).

When the casualty is first brought into the surgery, it is useful to ask for the finder's contact details in order to follow up any queries. For example, if it is discovered that the hedgehog is a recently gravid female, they can then be asked to look out for hoglets.

The practice needs to decide on its euthanasia policy for wildlife. Will wildlife with a poor prognosis for release be put to sleep immediately or will they be treated? Staff will need to be aware of the policy so that they know how far to take the initial assessment and first aid.

The British Hedgehog Preservation Society (BHPS) has guidelines for hedgehog rehabilitators on euthanasia policies, which you may wish to use as a basis for your practice policy. Contact details are provided at the end of this article.

Initial assessment

Candidates for euthanasia may include hedgehogs with:

- more than one major injury
- a major nose injury
- an area of burnt prickles in excess of a jam jar lid in size
- injuries that will require the amputation of either a fore- or hind limb

- a pelvic injury (especially female hedgehogs)
- small bodies and overly large heads.

Euthanasia may also be indicated in:

- elderly hedgehogs that require prolonged treatment
- permanently blind hedgehogs, unless there is a suitable escape-proof garden available, where they can be properly monitored
- hoglets with only white prickles, where it is known that the mother is dead.

None of the above is likely to survive or will not be a candidate for release back into the wild and so euthanasia should be considered as the best option.

Euthanasia is one of several areas where wildlife patients have to be dealt with in a completely different manner from our domestic pet patients. Ultimately, a good quality of life should be the end result and that can rarely be provided for captive wildlife. The other main difference is with contact – whilst a gentle hand may reassure a pet, it will be very frightening to an adult wild mammal or bird.

Tips on nursing care

Trauma to the head often results in blindness; vision – or lack of it – should be monitored in all head trauma cases. Rapid circling can be an indication of blindness.

Pelvic injury cases should have towelling placed on the floor of their cage to prevent slipping.

Treatment

Anatomically, hedgehogs are similar to other mammals. Their prickles are specialised hairs and it is important to be aware that you should not clip away too many prickles as they take a long time to re-grow (Figure 2). But if you ignore the prickles, hedgehogs are just ‘blood, flesh and bones.’

The lower jaw of a hedgehog looks undershot and the eyes bulge slightly, just as they do in hamsters. They also have a short tail (again like a hamster) that is sometimes held slightly to one side. In the male, the testicles are a similar shape to those in buck rabbits and there is no os penis. The external genitalia in both sexes are positioned

Figure 2: A hedgehog with no prickles – severe mange infestations can cause all the prickles to fall out



similarly to those in the dog and the bitch.

The approach to first aid treatment is much the same as with any mammal.

Treat any acute life-threatening injuries – such as significant haemorrhaging – first. And, although usually by the time a hedgehog is found, it will have succumbed to any severe trauma, □

“Whilst an older, much-loved dog will still be loved if it ends up with a limp following surgery; for a wildlife patient, all repairs should leave it with 100 per cent mobility or its chances back in the wild will be compromised.”

Figure 3: Protruding limbs often indicate an injury; but sometimes the limb can be missing, so always check there are indeed four legs



they sometimes survive and are presented with appalling injuries (Figure 3).

The three main life-threatening conditions that I would expect the majority of hedgehog casualties to present with are:

1. Hypothermia – whether sick, injured or orphaned, most hedgehogs will be hypothermic, even in very hot weather. They need the constant effect of direct heat (such as a heat mat) and they should be warmed slowly (just as you would any mammal). It is also useful to administer warmed fluids via the subcutaneous or intra-peritoneal route.
2. Dehydration – it is safe to assume that an injured hedgehog will be dehydrated, as it is likely to have been struggling with its problems for some days before being found.

As mentioned above, fluids can be used to warm the hedgehog as well as to treat dehydration. However, oral fluids should not be given until the hedgehog has been properly warmed as it is likely to be semi-conscious and may choke. A fluid therapy chart is available from the BHPS (see end of article).

3. Myiasis – fly strike. Many hedgehogs – whether injured or not – often have maggots (Figures 4a & 4b). Just being cold seems to attract the flies. Initially this is not life-threatening, but if left in eyes and ears, maggots can cause permanent damage and, of course, if left indefinitely they will cause death.

If the hedgehog presents with a significant number of maggots – especially if they are large – they may already have done too much damage.

Figure 4a: Fly strike



Figure 4b: Severe fly strike with well-developed maggots



However, small maggots – even in the eyes – if removed quickly will cause minimal damage and alone would not warrant euthanasia. Scratching, especially around the ears can indicate maggots.

One of the most common problems from around September until April will be what we call ‘autumn juveniles’. These are late-born youngsters that are old enough to be away from their mothers but too small to hibernate. They are often found out in the day but with few other symptoms other than being on the thin side.

Many of these are returned to the wild because initial examination does not show any problems. However, ‘out in the day’ is actually a symptom of a problem and should not be ignored.

Faeces samples from these small hedgehogs often show a heavy worm burden and also, perhaps, coccidiosis – an ‘autumn juvenile’ worming chart is available from the BHPS. Some individuals will struggle on into the spring, although severe cold spells, sadly, tend to kill them off before this.

Any hedgehog not thriving or responding to treatment should have a faeces sample examined for parasites.

Feeding

Normally hedgehogs may be fed a meat-based dog or cat food, but this should not be fed in isolation and other food should also be provided to balance the protein with roughage. It is difficult to suggest amounts to feed and weight gains as the hedgehogs will be emaciated and, therefore, should show a greater appetite and weight gain than a healthy, well-fed hedgehog in the wild.

Some cat biscuits can be given as this helps to keep their teeth clean and proprietary foods, such as Spikes Dry Food, which is a balanced hedgehog diet, are also available. Offer water in a heavy ‘rabbit’ type straight-sided bowl – saucers will be flipped over.

If the hedgehog is being returned to its finder for care, then he or she should be reminded that the hedgehog should only be offered water and not milk because milk can cause digestive upsets. Young hoglets up to six or seven weeks of age will require milk, but this should be a special puppy or kitten milk, and never cow’s milk.

Housing

A cage with newspaper on the floor and towelling bedding is best to house hedgehogs. However, individuals with pelvic injuries and small hoglets should have towelling on the floor of the cage rather than newspaper as this gives a better surface to walk on and reduces the chance of slipping. Make sure there are no loose threads on the towels.

■ **Figure 5:** A newborn hoglet with no prickles is less than two hours old – at 36 hours the dark prickles start to appear



Use white or pale un-patterned bedding initially, as this may show up any blood, pus or other discharges that may have been missed. Any females that may be pregnant can have a box, with a hole in the side, which is filled with torn (not shredded) newspaper in the cage; or perhaps a divided rabbit cage. A large female that has been feeding well – but then one morning is found not to have eaten – may have given birth.

Rehabilitation

Unless there is a quiet room available for wildlife, a veterinary surgery is not the best place for hedgehogs, so they should be passed on to a hedgehog or wildlife rehabilitator as soon as first aid treatment has finished.

Orphaned hoglets can be hand-reared within the practice by a team of nurses who can share the hand rearing at home or in a staff room (Figure 5). However, there may be health and safety issues to consider.

The BHPS has a list of contacts; they are not approved by the society,

so it is unable to advise on the standard of their facilities or their degree of experience. [info](#)

Further Information

The BHPS is happy to supply any veterinary practice with a Veterinary Surgeons Pack. We can also refer the more difficult questions on to hedgehog rehabilitators or an experienced wildlife veterinary surgeon, as is appropriate.

Contact the BHPS on info@britishhedgehogs.org.uk or 01584 890801 (office hours).

It has not been possible to discuss the rearing of hoglets within this article but if you do need advice on this the BHPS can e-mail you a chapter from the book *Hedgehog Rehabilitation* which provides an overview of hand rearing.

Further reading

Care and Treatment of Sick and Injured Hedgehogs includes a formulary of drugs commonly used on hedgehogs with suggested dose rates. It is available from the (BHPS) free of charge as part of the 'Veterinary Surgeons Pack'.

Hedgehog Rehabilitation by Kay Bullen VN and available from the BHPS, price £14.95 including postage.

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