AVIAN CASUALTIES: WILDLIFE TRIAGE

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Pru Harvey explains how to tackle triage in wild birds, including potential difficulties and the financial considerations facing practices

TRIAGE refers to the rapid assessment of disease in order to assign degrees of urgency to treatment and must be performed to optimise prognosis and prevent suffering and compromised welfare.

Wild birds of many species are regularly presented to veterinary clinics by members of the public and wildlife care organisations. The reasons for presentation vary significantly, but every surgery should have a triage protocol – animals are far too often left in cages with evaluation and care delayed until someone has time to look at them. Being confined to a hospital cage surrounded by the sights, smells and sounds of predators, such as dogs and cats, is a stressful experience for any wild animal, compounded by the stress and pain of its original traumatic event.

The first assessment is the most important and is one that needs to be revisited throughout rehabilitation. Will this bird function normally in the wild once rehabilitated? If the answer is no, then the benefit of treatment must be questioned, and sadly, once assessed properly, euthanasia may be the only solution.

Very often it will be a veterinary nurse who admits wildlife cases and, as the first port of call, the nurse’s role is vital in the welfare of that animal. Full details of the member of public who presents the case must be recorded. Contact details and location are important for legal, as well as for rehabilitation site selection purposes. By the time of presentation, the bird is typically stressed, shocked, often traumatised and in pain, and almost invariably dehydrated and hungry. Baby birds

typically need to be fed every hour or so (Figure 1) and lack of attention for such a period could be the difference between life and death.

Do not wait for a wild bird to feed itself. Often it will not, due to stress, and will need to be force-fed with a crop tube. The necessary frequency and volumes of feeding should also be considered, as should the appropriate food, with respect to species. When offered food to take voluntarily, these should smell and visually resemble a natural diet – for example, a fluffy yellow chick or white mouse will be foreign to a wild raptor, whereas skinned will be recognised as a food item.

Prior to arrival

The initial stage of triage can take place over the phone when the rescuer first calls. One of the first questions to ask is whether the rescuer has caught the animal. If the rescuer is unable to capture the bird, how will you do so? Nets are useful, but if the bird can fly, the chances of catching it are much reduced.

The safety and security of both the bird and rescuer are paramount. What type of bird is it? Injured wild animals can often respond unpredictably and even the most collapsed patient has the potential to inflict significant damage. Knowing the species is important, for example, most raptors will use their talons in attack and defence, whereas herons and cormorants will stab at eyes with their beaks.

If the bird is confined, is it secure for transport with no chance of escape? A loose bird in a moving vehicle provides a very real chance that both the rescuer and the animal could be seriously injured.

History taking

As with our domestic species, history taking in wild bird triage is essential. Take the details of the person who brought in the animal as further information may be important in returning the bird to its original location once rehabilitated. This also applies to fledglings/chicks, where the opportunity to return them to their nest must not be missed. If a fledgling/chick is found with no injury or sign of debilitation, it is often best to search for the nest nearby to which the bird can be returned.

If the rescuer cannot find the nest, advise him or her to feed the bird, then place it in a cardboard box or similar in an elevated position, free from risk of predation, and close to the site where it was found (if in a plastic box, ensure there are holes in the bottom to prevent drowning if it rains). If the bird is adult and/or injured, while reception staff are taking a detailed history, it can be admitted and triaged briefly and non-invasively, then treated for shock with a full triage examination two hours later. Doing too much, too soon in a shocked bird increases risk of iatrogenic death.

Physical examination

The easiest way to examine an animal is to have a routine. Start at the head, from which you can work your way backwards. Remember that birds' lungs are relatively rigid and the lungs and air sacs depend on muscular activity for inhalation and exhalation, thus care must be taken not to compromise respiration while restraining the bird. It is also important to remember that wild animals instinctively hide signs of disease and it is often not until you perform a thorough physical examination that you may find a significant problem.

Head

Start with the beak. With the bird securely wrapped in a towel or with another nurse restraining it, examine the whole beak and jaw for fractures, other signs of trauma or abnormal discharge – a bird's beak is vital for prehension of food, preening and defence. Inability to perform any of these tasks will render a bird helpless in the wild (Figure 2).

Open the mouth and examine the mucous membranes for signs of bruising or haemorrhage, which may be indicative of head trauma. Abnormalities in mucous membrane colour may indicate internal haemorrhage, toxic insult or respiratory compromise. Examine the back of the oral cavity and under the tongue for Gapeworm (*Syngamus trachea*), which is seen in gulls, is common in starlings and corvids and can cause fatal respiratory compromise, or *Capillaria* species worms (common in buzzards). Also check for areas of discolouration, inflammation, exudation or plaques as may be seen in bacterial, viral, yeast, *Capillaria* and *Trichomonas* infections.

Examine the nares closely as well as the eyes, ears and scalp. Remember that almost all birds have salt glands (functionally important in marine species and some raptors) that extend rostrally into the nasal cavity. When affected by heat stress and dehydration, crusting of salt around the nares is often seen. Eye damage is found in 30 per cent of bird admissions to rescue centres, while in 70 per cent of these cases, only the posterior segment (behind the lens) is damaged. Such damage is typically haemorrhage from the pecten, which will only be visible on ophthalmologic examination. It is vital to detect such injuries as they typically result in loss of sight and preclude successful rehabilitation (Figure 3).

The size and internal location of many birds' eyes creates risk of retrobulbar penetration by talons subsequent to attack by raptors or corvid species. If ocular trauma is suspected, stain the eye with fluorescein to assess the cornea for ulceration (Figure 4).

Examine the ears for discharge, bruising and parasites and the scalp for signs of trauma that may be disguised by feathers.

Neck

Examine the neck thoroughly for signs of trauma or internal abnormalities. Crop ruptures (on the front of the neck) can occur due to predator attack or collision with wire or glass and are common in

pigeons. Fishing line and hook entanglement/ ingestion or secondary abscessation is often seen in marine birds and other water fowl. Many swans (65 per cent) that suffer power line flight injuries are suffering from concurrent lead poisoning, so consider this also. (Figure 5).

Wings

Examine the position of the bird's wing tips from a distance. Are they sitting symmetrically or is one hanging slightly lower than the other? Next, extend both wings at the same time and compare the degree of extension and tension, as any dissimilarity will indicate an injury. Road traffic accidents involving raptors often result in damage to the radial nerve, which can cause permanent wing paralysis and hence an unreleasable bird. Palpate and manipulate every aspect of the wing (Figure 6) and shoulder including the clavicle, scapula and coracoid. Again, working systematically from clavicle to wing tip will ensure consistency and a thorough exam. Fractures of wing bones may be fixed, depending on severity and location, but the cost must also be taken into account. The propatagium (the soft tissue aerofoil on the leading edge of the wing, which joins the shoulder to the carpus) is often damaged in entanglement cases commonly involving fishing line or barbed wire. This anatomical structure is vital for flight, without which a bird cannot survive in the wild, so such injuries preclude rehabilitation.

Body

Penetration of the body cavity is common in wildlife casualties. Many birds present having been "brought in by the cat". Despite claims by owners that the cat just carried the bird in its mouth without injuring it, the conical shape of cats' canine teeth often results in penetrative injuries that close rapidly sealing in bacteria carried in the grooves of the teeth. These wounds are often very difficult to find, but a bird with a cat bite will die rapidly from *Pasteurella* infection; the most common bacterium found in cat bites if not treated immediately with the appropriate antibiotics. Other body wounds may expose cavities including the coelomic cavity and air sacs. Using alcohol to dampen feathers and expose these wounds is not advised due to the resultant evaporative heat loss from the patient, which can be fatal in smaller birds.

Legs and feet

Very little soft tissue overlying bone, vessels, nerves, tendons and ligaments is present in birds' legs other than skin. Depending on the species, this skin may be feathered or scaly with varying degrees of thickness (Figure 7).

Entanglement involving legs and feet is also common in wildlife casualties. Depending on the duration of the injury, there may be significant swelling and necrosis of distal parts of the limb. In that case, careful consideration of the bird's requirements is needed to assess post-operative return to function. While many gulls and pigeons tolerate amputation well, complications include

osteomyelitis, septic arthritis and bumblefoot (Figure 8) in the remaining limb. Limb fractures are usually simple to palpate and again, return to function post-rehabilitation is the goal.

Tail

A bird's tail (Figure 9) is used primarily to maintain stability and generate lift and manoeuvrability during flight. Loss of tail (or wing) flight feathers is common and will significantly affect the bird's ability to fly. Such cases will need to remain in captivity until the feathers have regrown. Occasionally, detachment of the uropygium from its ventral attachment occurs in a "tail-pull" injury, resulting in an inability to fly or maintain balance.

Financial considerations

Veterinary practices have a moral obligation to accept wildlife from members of the public. The extent of treatment given, however, depends on the practice. In the past, the RSPCA has contributed money to practices per case allocated on a log-number basis. However, since this April, the only birds for which a log-number is provided (and hence any financial support) are swans, geese and raptors. This means that any other wild bird is treated solely at the expense of the practice.

This needs to be explained to rescuers of wildlife during the admission and triage process as the cost price alone of simple wing fracture repair can be hundreds of pounds.

Conclusion

Triage is a vital and often overlooked element in wildlife rehabilitation and veterinary practice. From a veterinary perspective, protocols should be in place to deal with wildlife on admission, not several hours later. The nurse's role in triaging wildlife from the first phone call is as critical as the ongoing care of the patient once viability for rehabilitation has been approved. When deciding to rehabilitate or not, it is essential to have access to appropriate facilities, nutrition and carers with facilities for pre-release fitness development and testing. Unfortunately, many avian wildlife casualties are not releasable because birds are such finely tuned instruments and the slightest defect can lead to disaster. Nevertheless, prevention of suffering through the most appropriate means, whether it be rehabilitation or euthanasia, is at the core of triage of avian wildlife casualties.

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