Demystifying Feathered Frenzies: Learning Handling and Sampling Techniques in Birds

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Birds can be a challenge to handle for those who are not familiar with them. Once acquainted with the techniques, however, it is no more challenging than handling a variety of dogs or cats. A variety of birds could be patients including finches, budgerigars, macaws, amazons, or even raptors.

The first thing in deciding to treat avian patients is to have an adequate area to examine, treat and hospitalize them; to have adequate equipment; to be comfortable in handling them; and be willing to treat them. The range of avian patients will span from parakeets that someone bought on an impulse purchase at a pet store, to more valuable macaws. If your practice assists rehabilitation facilities you may then be involved in treating passerines to raptors.

Once your practice has decided to treat birds, helping them acquire adequate equipment is a must. You will want access to ample towels, mouth speculums, metal gavage tubes, a dremmel with a variety of bits, welding gloves or garden gloves, a perch to place on a scale, gram scales, small masks, and anesthetic masks that you can make yourself for anesthesia.

Once you have the equipment, you will need to find a waiting area for these animals that are either prey species or are wild and not used to being around the typical smells and noises of a veterinary practice. An exam room that is dedicated or a dedicated portion of the waiting room would work well for allowing for separation and a decrease in the noise level.

How do they get there? Advise clients to bring the birds in a travel carrier, or if they are ill and they do not have a travel carrier, have them bring them in their original cage with all the toys, etc. removed. The bird can also be brought in a cardboard box that is adequately sized for the bird (note – this is not an adequate way to move a medium to large psittacine).

The patient has arrived and now you are going to examine them. The first part of the examination is for you and the veterinarian to examine them as they are in their cage, holding cage, or box to determine what they are doing. This is a very valuable portion of the examination. A weight is also a valuable part of the examination which can be performed while the bird is still in the crate or box and then weigh the crate or box, or have a scale with a perch on it for the bird to step up onto the scale. Afterward, you can restrain the bird using a towel, or gloves or your hand. If you choose to use gloves, use caution as you can misjudge how tight you are handling the bird. Remember to not wrap your hands completely around the bird so that they can still breathe by dropping their keel down. Catch the bird in an enclosed area that has few areas for the animal to escape to and get stuck or fly behind/into/break, etc. It is also helpful if there is not a window or other source of
light and you are able to turn out the lights if needed. If the bird gets loose when you open the box and the owner is not able to assist, turn out the lights and it is typically easier to capture the bird, unless of course it is an owl.

To hold the bird, typically small birds and passerines, use a scissor grip. For psittacines you can hold one hand around the wings with the bird wrapped in a towel and use your second hand to restrain the head with your thumb under the mandible to hold the mouth shut and your hand around the back of the head of the bird. For raptors, hold the legs bilaterally with gloves and wrap the body in a towel for restraint. Alternatively once you have the raptor restrained, with a towel and holding the feet, after a food exam you can place ball bandages on the feet to add an extra layer of security. For this place a cotton ball or gauze bandage in the foot so that the talons are in normal alignment. Then you can wrap vet wrap around the talons and the gauze to secure the talons in place. You are now ready for your physical examination. Take care to not break blood feathers during restraint or handling. These feathers have a central shaft that is typically a black/dark blue in color and may have a white sheath around them. These are new feathers that are coming in. Damage to these feathers will cause bleeding and could potentially damage the feather follicle. If a blood feather is broken, don’t be concerned, it can be removed by grasping with a hemostat or pliers at the base of the feather and pulling it straight out. This will stop the bleeding and hopefully cause the least amount of follicle damage. Basic medical procedures can be done under medical restraint, including radiographs and beak trimming, however, for major medical procedures or more involved beak trims or radiographs anesthesia is typically required.

Birds should never be tanked down for anesthesia. Birds should always be manually restrained to administer anesthesia by a mask or modified mask. Sevoflurane typically works the fastest, but if it is not available isoflurane works as well. Intramuscular injections can also be given as a premedication or anesthetic, but the bird should be restrained during induction. Intranasal can also be used for sedation or brief anesthesia.

Once the bird is restrained or anesthetized and diagnostic specimens are needed, you can now start to collect/administer them. Typically this is at least a two person job, with the occasional times it is a three person job without anesthesia. If possible, it is always easier and safer on the patient to perform diagnostics under anesthesia.

Blood can be collected from multiple locations including: right jugular vein, ulnar vein, tarsal vein. It has been said that clipping the nail is a method to obtain blood from birds, I have found that this is painful and stressful to the birds and you are typically significantly more successful elsewhere, unless the bird is <3 grams you will be more successful using an actual vein. Blood is collected from the right jugular vein as it typically is larger in birds than the left side. They do have both sides for their jugular vein but again, the right side is generally larger in size. Collect blood into a green top tube, or a heparin tube. The size of the tube depends on the size of the patient. You can safely draw 1% of the body weight of the bird in grams. So if the bird is 30 grams, you can draw 0.3ml safely. You will have to do a manual CBC as you cannot use a typical CBC analyzer with birds due to their nucleated red blood cells. Intramuscular injections can be administered into the pectoral
musculature, and the quadriceps muscles. Subcutaneous injections can be administered along the subcutis between the wings on the back with care, or in the skin fold in front of and caudal to the legs. Depending on the size of the bird, a butterfly catheter may assist in your administration of fluids.

Intubation or force-feeding is done easily as the trachea is readily visualized in most species. Only intubate with a non-inflatable endotracheal tube. Birds tracheas have complete tracheal rings and using a cuffed endotracheal tube can cause extensive damage to the bird’s trachea. In the event that you have to use a cuffed endotracheal tube due to the size of the bird’s trachea, do not inflate it. When anesthetized it can be common for birds to go through apneic periods, particularly in the event of waterfowl, so be aware of that. Esophageal tubing for feeding or medications can be performed, by avoiding the trachea, using metal gavage tubes or red rubber catheters.

For eye examinations, they have skeletal muscle control of their eyes and can dilate and constrict their pupils. It is possible to dilate the eyes of the bird medically at least some, but not to the degree of mammals.

Intravenous catheterization is most commonly done by an intraosseous catheter. Placement is typically done in the distal ulna or proximal tibiotarsus. Most other sample collection techniques are similar to mammals.

Selected References or books for future use:
1. Altman; Club, Dorrestein; Quesenberry. Avian Medicine and Surgery.
2. Campbell, T. Clinical Cases in Avian and Exotic Animal hematology and Cytology.
A method of transporting a passerine and method of removing from box.

The “scissors grip” method of restraint commonly used with passerine species.