The Companion Bird

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Introduction

The companion bird, as distinct from the aviary bird, holds a special place in many Australian families. Increasingly more and more Australians, because of the constraints of modern life, are looking for a companion pet that can be kept in an apartment, or doesn't need a lot of room to exercise in, or will fit in with their lifestyle. Many of these people are finding that companion in the pet bird.

As with other pet owners, bird owners are increasingly expecting more from the veterinary profession. The Age of the Internet is making people more aware of what can be done for birds, and they expect that all vets are capable of providing a quality service for all creatures – great and small

As veterinarians, we hopefully know when is an appropriate time to refer a case to a colleague more skilled or qualified than ourselves. But there is no reason why you – the general practitioner – cannot offer an excellent basic service, supported by a referral network. Bird medicine just isn't all that difficult!

In this presentation I want to draw your attention to the basics of assessing a pet bird medicine case. You will note that, although there are many similarities to dog or cat medicine, there are some unique features of birds and bird medicine that make them a challenge. But I hope that by the end of this week you will feel more confident when your receptionist announces that there is a bird in the waiting room.

History

No big surprises here – you need to know the bird's background, the bird itself, and the problem it is here for. Knowing many of these things can be pointers or clues to where or what problems you are looking for. Hopefully your receptionist will have ascertained what type of bird it is, what sex, how old, etc. It can be embarrassing if you don't know which of the 9,000 species of birds it is that you are looking at! Remember, always ask your questions so that you get more than a "Yes" or "No" answer. Suitable questions to ask might include:

Bird's background

How long have you had your bird?
Where did you get it from?
Was it hand reared or parent reared?
What do you feed it? (Or better still – what does it eat?)
Does it stay in the cage all day? How much exercise does it get each day?
Is it under supervision when it is out of the cage?
Do you have any other birds?
Have you bought new birds recently?

The bird itself

How old is it?
Has it ever laid an egg? (Many owners will not know if their bird is male or female)
How tame is it?
Does it talk?
How does it respond to the family? To strangers?
What other problems has it had?

The problem

Why have you brought your bird here today?
How long has this been going on for?
What signs is your bird showing?
Is this the first time?
Has it had any treatments – from the pet shop, other vets, friends, etc?

This is not a comprehensive list of questions. As you start asking these questions, some of the answers will focus your attention on certain areas eg the bird's reproductive history. More questions will be needed to draw out the information you need.

Some of these questions will raise little red flags for you. For example, a bird from a pet shop or a market is more likely to have Psittacosis, a bird on an all seed diet almost certainly has major nutritional problems, such as liver disease or respiratory problems.

Distant exam

While asking the above questions, you should keep one eye on the patient, absorbing as much detail as possible. (Make sure your receptionist knows to instruct bird owners not to clean the bird's cage before coming in, other than to put down some clean newspaper over the old, and to remove any water.) You should take in the cage, the food dish, the bird, and the bird's droppings.

The cage.

Is the cage the bird's normal cage? Is it an appropriate size for the bird? Is it safe – no old latches or pieces of wire, no rust, no broken bars, etc? Is it clean? What are the perches – branches, dowel or a steel pipe? Are the perches over the top of feed & water dishes? Are there any toys? Are there too many toys? Are the toys safe? Are the food & water dishes safe? Are there any pieces of lead or zinc in the cage?

The food dish.

Check out the food dish to see what the bird is actually eating – as distinct from what it is being fed. Check out galvanised D-cups – they usually have lead solder around the base. Are there any droppings in the food? Is the food fresh? Is it appropriate for the species (eg seed for lorikeets)?

The bird.

When the bird is initially placed on the table, all of its protective instincts will be in full force. It will be doing its best to appear alert, active and possibly aggressive. Let it settle for a few minutes while you are getting your history – don't rush in to pick it up, or you may miss a few vital clues.

Many sick birds will try to hide signs of illness from a potential predator (the masking phenomenon). In most cases, after a few minutes they will revert back to their "sick" posture. Their eyes close, they fluff up, the wings droop, and they may tuck their head back. This tells you the bird is truly ill, and needs to be hospitalised. (If they can maintain an alert posture, they may not need to be hospitalised.)

Look for signs of respiratory effort – mouth breathing, tail bobbing, sternal lift.

Is there any evidence of lameness or leg weakness?

What is the plumage like? Is it tidy and tight? Is the colour bright or dull?

And so on….

Faecal examination

Birds' droppings are made up of three components – faeces (brown/green/black part), urates (white) and urine (liquid). In a healthy bird, the faecal portion should be formed and homogenous, with little odour (except for poultry, waterfowl and carnivorous birds). The urates should be a crisp white and slightly wet (be aware that old droppings will have greenish urates as biliverdin leaches out of the faeces). The urine should only extend a couple of millimetres past the dropping. (Be aware of so-called "excitement polyuria" – a nervous bird will have polyuria.) A close examination of the droppings is a valuable starting point to a clinical examination.

Some abnormalities you will encounter include:

diarrhoea – unformed faecal portion
undigested food in faeces
very bulky droppings – maldigestion; reproductively active hen; abdominal growth; pelleted diet
melaena
malodorous droppings – bacterial/fungal overgrowth
green urates – indicative of liver disease
pink/red urates – nephritis, often associated with lead poisoning, especially in Amazons & Galahs
yellow urates – associated with anorexia
orange urates – a Vitamin B injection in the last few hours
thick, pasty urates – dehydration
polyuria
anuria
discoloured urine – similar causes to discoloured urates

fresh blood – a cloacal problem

Handling

The next step is taking the bird out of the cage. It is VITAL to remember at this stage that this is a pet, and a bad experience while been handled can mean you lose the bird's (& the owner's) trust forever. Birds are intelligent, inquisitive and fun-loving – don't ruin that.

My approach is, while taking the history, to ascertain how friendly & tame the bird is. If the bird is friendly, I will take it out of the cage. If the bird is friendly to the owner, but doesn't like strangers, I will ask the owner to take it out. If the bird has never been handled, then I will use a towel to remove it from the cage.

If the bird is friendly, gently place your hand into the cage, with the back of your hand to the bird. If there is no aggression, place your forefinger under the bird's chest, at the same time asking the bird to step up. A tame bird will usually step onto your finger. Place your thumb over a toe or the foot to keep the bird steady, and gently bring it out of the cage. The whole time you are doing this, praise the bird, talking to it, and maintaining eye contact. When you have the bird out, talk to it, praise it, scratch its ear, and so on. Make a big fuss over the bird, and enjoy yourself!

The same applies to the owner taking the bird out. Once the bird is out, have it step onto your finger, praising it the whole time.

If you have to use a towel, take your time. Show the bird the towel, let it get used to it. If possible, envelop the bird in the towel from below – an approach from above is a very scary (predator type) experience for a pet bird. Keep talking in a friendly voice, maintaining eye contact.

Once you have the bird out spend a few moments talking to it, praising it and encouraging it. This is not wasted time – not for you, the bird, or the owner.

NB IF THE BIRD IS CRITICALLY ILL, GENTLY PICK IT UP WITH A TOWEL, EXAMINE IT BRIEFLY, AND THEN PLACE IT IN A HEATED CAGE.

Physical Examination

Once you and the bird have made friends, continue your physical examination. The first step is to weigh the bird. This can be done by either having the bird step down onto a T perch on a set of gram scales, or placing it in a container sitting on a set of scales. Record the weight on your record – it is a vital piece of information.

Once you have weighed the bird, a more thorough examination begins. You may need to gently restrain the bird in a towel to do this. Once again, approach from below, either in front or behind. Keep talking to the bird; let it know what you are doing.

Once you have the bird restrained, start your examination. I like to start at the head. Use a Q-tip to gently open the mouth. (On bigger birds you may need gauze loops, a corner of the towel, or even a Nylabone.) Look at the colour, the choana, and the pharynx. Look for blunting/absence of the choanal papillae, the presence of abscesses or plaques, or anything out of the normal. Look at the nares – are they symmetrical? Is there any discharge in the feathers above the nares? Use the Q-Tip to part the feathers, looking for pin feathers, scaliness on the skin, the condition of the ears,

vomitus. Look at the eyes. Any obvious abnormalities? Look at the head in profile from all sides – any asymmetrical/abnormal swellings?

Come down the body. Any food in the crop? Any evidence of fluid retention (stasis) in the crop? Palpate the pectoral muscles. They should feel strong and muscular. Do they feel soft (fat) or wasted? Is there any cleavage? Any fat deposits around the base of the crop? Palpate the abdomen – any swelling or lumps? Wet the feathers over the ventral abdomen with isopropyl alcohol – any s/c fat deposits? Does the bird pass the pinch test?

Palpate the legs and feet. Any swellings, crepitus, bruising, etc.? Do the toes grip well? Any plantar wearing or abscessation? Any white deposits in the joints (gout)?

Extend the wings. Do they extend fully and easily? Are the wings clipped? Is it a good clip? Hold the wing against a light – any lice or nits? Any swelling in the joints?

Auscultate the heart. It should be rapid (200 – 400 bpm) Any bradycardia, arrhythmia, murmurs?

Once you have finished your exam, let the bird stand back on its perch or place it back in the cage, or return it to the owner. Record your findings.

REMEMBER, IF THE BIRD SHOWS ANY DISTRESS AT ALL WHILE BEEN HANDLED – PUT IT DOWN!

Laboratory diagnostics

Because birds mask signs of illness and are limited in their physical expression of illness, it become more important to use laboratory diagnostics as part of your clinical work up. My belief is that the veterinarian should start with the least invasive & cheaper tests, and escalate as more information is revealed (or not revealed). This enables you to refine and focus your approach, while minimising cost to the owner and risk to the patient

Faecal tests

Smear – collect a fresh sample and mix with saline. Look for coccidia, motile protozoa
flotation – same as dogs and cats
Gram stain – VPS Idexx will sell you the stains & directions. Parrots and passerines will have a predominantly Gram positive rod flora. Look for:
Excessive nos. Gram negative rods
Gram positive yeasts (differentiate dietary from infection)
Megabacteria
Pseudohyphae
Pure growths of anything

Urinalysis

Only if polyuric
USG unreliable
Look at pH, glucose (ketones?), and blood. Ignore leucocytes and bilirubin
Sediment exam – look at bacteria (faecal?), casts, occasional crystals, cells

Culture
swab from cloaca, choana or crop
need to know normal flora

Blood tests

collect 1% of body weight eg 30g budgie, you can safely collect 0.3ml blood
Use jugular or basilic veins. Watch for haematomas
Can be done conscious or under GA
I use BD Lo-Dose 0.5ml syringe with a 29g needle
Place in Lithium Heparin (biochem), EDTA (haematology) and make 2 smears
Basic avian profile:
AST (SGOT)
CK
Glucose
Uric Acid
Total Bile Acids
Cholesterol
Amylase
Total protein
Calcium
White Cell Count and differential
PCV

Chemistries such as ALP, bilirubin, ALT, etc are meaningless in birds. If your lab insists on running these tests, get a new lab
In-house vs external lab?

Serology / PCR

limited number available in Australia
PCD is main one
Hopefully have some PCR running out of Sydney soon

Diagnostic imaging

Radiography is a very useful screening tool. Ultrasound, at this stage, is less useful, but shows promise. Some work is been done in USA on CT scans & MRI
GA is preferable for good positioning and OHS.
Two views needed – lateral and VD.
Learn normal anatomy & landmarks eg liver, kidney
Look for:
Enlarged organs
Displaced organs
Small organs
Air sac lines
Heavy metal

Endoscopy

starting to get invasive, so by now blood work and radiographs should have narrowed down areas of interest
Valuable diagnostic tool with experience
Need to attend formal course to gain skills. (AAVAC Conference, August 2002, Currumbin Sanctuary, Gold Coast, Qld!)

Biopsy

can be done endoscopically or surgically
needed for a precise diagnosis and subsequent better treatment
minimal risk to patient
Organs commonly biopsied:
Liver
Kidney
Pancreas
Gonads
Adrenals
proventriculus

By the use of a good physical examination and skilful use of diagnostic testing, you should now have a confirmed diagnosis or at least a short list of differentials. Treatment can then be given to effect a cure, or rule out differentials.

Treatment

Treatment has two objectives – to treat the specific condition and to keep the patient alive.

Patient support

Heat. Birds have a normal body temperature of approximately 41^0C. This is made up of absorbed ambient temperature and metabolic heat. Sick birds are unable to maintain their metabolic heat, and so they fluff their feathers in an attempt to conserve body heat and trap ambient heat. By increasing the ambient temperature to 31^oC, the workload on the bird is reduced, and more effort can be directed to recovery. This heat can be provided by humidicribs, light bulbs, or even heating pads. Care must be taken not to dry out the bird, so a source of humidity must be supplied.

Fluids. It is usually safe to assume all sick birds are 8-10% dehydrated. Fluid therapy can be given orally, intravenously, intraosseously or subcutaneously. Each method has its advantages and disadvantage. Formulae exist to calculate fluid requirements, but in practical terms it equates to giving the bird (in mls) 10% of its bodyweight (in grams) on the first day, 7.5% on the 2^{nd} & 3^{rd} days, and 5% daily after that. Extra may be required if there is an ongoing fluid loss eg polyuria or diarrhoea.

Oxygen should only be used in the short term. It is very helpful for the dyspnoeic patient, but recent work has shown that it can be toxic if used for more than a few hours.

Nutrition. A well known maxim states: *Sick birds need to eat. Sick birds that don't eat – die*. If a bird cannot or will not eat, you will need to tube feed it. A variety of formula are used; I prefer a

parrot hand rearing formula, or Poly Aid (Vetafarm) which supplies vitamins, sugars and proteins. Tube feeding is an essential skill to learn if you are to treat birds, and I would urge you to do so.

Treating the condition.

Although the patient support procedures will save more birds than any drug, there is a need to use therapeutics to treat specific aetiologies. Principles of treatment include:

Know what you are treating, and use the appropriate drugs or therapy. A standard joke amongst avian vets is the number of birds treated for "Baytril Deficiency" (even by ourselves!). While antibiotics may be appropriate until a diagnosis is made, they should not be used if the diagnosis does not involve a bacterial infection. A good diagnosis should dictate the best specific therapy, and this should be applied specifically.

Ensure it is delivered safely to the bird in therapeutic doses. When deciding which drug to use, the clinician must consider the dose and means of delivery. Putting antibiotics in the drinking water of a critically ill bird just doesn't make sense – but it happens every day. Drugs can be given orally, in the drinking water, intravenously, intramuscularly or subcutaneously. They can also be given by nebulization or topically. The route to choose will depend on the nature of the drug and the condition been treated, as well as the bird's ability to utilise such drugs. The clinician must familiarise him/herself with the drugs they want to use, and the best means of delivering it.

Monitor the response to treatment. Initial monitoring of response should include daily weighing of the patient and close observation of the bird – its behaviour, appetite, droppings, and so on. Serial blood tests and /or biopsies may also be needed to more closely follow the course of recovery. As clinicians we must not only diagnose and treat, we must also ensure that our treatment has worked.

Conclusion

At the end of the day, avian medicine is just an extension of small animal medicine. Many of the concepts you are using on a daily basis in your practice can be applied to birds. Treat your patients gently, and with care. Get a good history, do a detailed physical examination, and use lab tests appropriately. Obtain a specific diagnosis and apply a specific treatment. Keep your patient alive while you are doing all of this. Monitor the response to treatment.

Avian medicine just isn't that difficult!