

Physical Exam of the Cavy

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Often we get messages with the sole comment being this: I have a sick pig. Then the veterinarians of the CHHC go through a series of questions trying to identify what system is involved and frequently we have to sit and wait for folks to run and look at their pig to answer our questions. One thing owners are fully capable of is doing a systems review and examination. Items that are important to know: the age of the pig, what it is eating, how food and water is supplied and any supplements that the animal is on as well as its weight and reproductive status. Is it in with other animals, and is it the only animal in the herd affected? Is the affected animal exclusively housed only with other cavies, or are other species allowed access to or housed with the cavy? We are interested in cage setup including floor space per animal and bedding. Before reviewing specific features and systems of the pig, make a quick assessment of the general condition and attitude of the animal. A two and a half pound animal can still be thin. Thin animals can still be bright and alert and interested in life. In this overall assessment start examining the hair coat and the skin looking for areas of baldness, excessive flaking, sores, lumps and bumps, etc. Running your hands over the animal, notice any areas of pain including limbs and abdomen.

Eyes- are the eyes bright, shiny and without discharge. Do they appear to be the same size and are they oriented in a similar fashion. Do the eyes seem to have a rapid back and forth movement that appears to be involuntary? If the eye is cloudy, can you determine if there are extra lashes or if the lids sort of roll inward? How long has the process been going on? Review some of the more common issues below, but a more complete discussion can be found on the ACBA website.

Pea Eye- what appears to be fatty tissue between the lower eyelid and the eye, can also affect the upper area of the eye. Usually not something to be worried about, as it seems to be well tolerated by the cavy but it is a Disqualification from Competition and very likely has a genetic component, although other etiologies have been put forward.

Heterotopic bone formation. Inside the anterior chamber, usually found where the cornea meets the sclera, you will see white flecks which can actually get quite large. This is actual bone that has formed within the eye (specifically the ciliary body). Some ophthalmologists (David Williams) in England feels it may occur when Vitamin C leaks into the aqueous humor. More current literature gives it an unknown etiology but all agree no treatment is necessary.

Conjunctivitis- reddened and inflamed conjunctiva. The one that causes the most concern because it can potentially be zoonotic is inclusion body conjunctivitis *Chlamydia*. This type of conjunctivitis is very infectious but generally self limiting and will go away on its own. The signs can be very mild, just a bit of extra watering, but some animals exhibit quite a bit of pain with squinting and swelling about the eyes. It is diagnosed with a conjunctival scraping and can be treated with specific antibiotic ophthalmic drops although again, it is considered self limiting. Strict hand washing should follow handling of animals with conjunctivitis.

Ears -Examine the external surface of the ear. Are there areas of a whitish crust in a circular pattern? That may lead us to think fungal infections, and yes, it may occur only on the ear before it spreads. Look at the inside of the ear. In certain breeds, most noticeably the teddy breeds, there may almost be a cast made of waxy and flakes that form a mold of the external ear canal. Clean it out. External ear canal should be dry and odorless. Otitis externa is rather rare in pigs.

Deafness in Pigs- There are more deaf pigs out there than we are generally aware of. Some pups are born deaf, some pigs acquire deafness as they age, with or without obvious ear problems. Deaf pigs may or may not be “verbal”. There are advantages to being deaf and disadvantages. First, being deaf does not constitute a disqualification in a show animal. Second, these animals are fantastic as preschool pets where the ambient noise level may be quite high and also therapy animals. The downside is that deafness is not something that is generally considered a good finding in a “normal” pig. Their use in breeding is up to the individual breeder. Certain viruses (cytomegaloviruses in young pups or when infected in utero late in pregnancy), antibiotics, continuous loud noise can also lead to deafness. Also, these animals may not be able to take auditory cues from other pigs and may not understand the warning teeth chattering that often precedes an attack. Just as an interesting point- because of the similarities with humans, cavies are used in auditory studies.

Head Tilt -One thing to remember about head tilt is that the tilt is always in the direction of the lesion. So if the ear is down on the right side, or the animal is looking to the right, it at least locates the problem to the right side of ear/brain. Head tilt can be caused by any number of things- middle or inner ear infection, stroke (cerebral vascular accident), postural/positional. If a pig is tilted up and down briskly, as in from on its stomach to back and then back to stomach, you can induce head tilt in a normal animal. When we are the cause of the sign we are seeing, it is called *iatrogenic* .(Yes, I have seen this happen. The animal recovered normal postural position in 5-10 minutes.)

Nose- Examine for discharge, clear, white, yellow or bloody. Is sneezing present? How long has the discharge been present? Remember that there is a naso-lacrimal duct from the lacrimal lake of the eye which discharges into the nasal cavity. Whenever there is present an unusual eye discharge, be it tears or worse, you will frequently see a nasal discharge. Also remember that if your animal is under heat stress they will exude clear liquid from their nose in an attempt to cool off. Often this is preceded by sneezing. A small amount of moisture is perfectly acceptable since the cavies are discharging water vapor as well as CO₂ when they exhale. This is also the time to examine the inner surfaces of the front paws/legs to see if there are exudates present indicating the animal has been using them to wipe its nose.

Oral /Throat Exam- The head cannot be left without a look inside the oral cavity. Make sure that the incisors are of appropriate length and wearing evenly. If the cavies in your caviary are having a rash of broken teeth, please increase the Vitamin C as broken/fragile incisors can be one of the early signs of deficiency/scurvy. Look for any sores in the mouth. If possible, try to look at the premolars. In the

absence of a speculum, sometimes (with assistance and good lighting) it is possible to take two small spoon handles and separate the cheeks enough to get a reasonably decent look inside. It takes practice. Again, always palpate under the chin looking for swollen lymph nodes.

Skin- Owners need to be alert for anything that looks abnormal in the skin. Some breeds have greater “flakiness” than others as a normal occurrence and some- rarely a flake is seen unless pathology is present. If there is hair loss, what is the pattern? Hair loss from external parasites looks different than hair loss from plucking or fungal issues. Where on the animal is the problem being observed. If a lump is present, where is it located, on the rump or in the mammary gland? Location, Location, Location. Take pictures of it to demonstrate progression or resolution once therapy has been instituted.

Respiratory and Circulatory Systems- The heart beats so fast that at least in my hands evaluating heart sounds is a worthless exercise except to determine if the animal has expired or not. But listening to the chest for breath sounds can be very rewarding. Even without a stethoscope, the animal’s chest can be brought up to our ear and we are listening for anything other than normal quiet breath sounds. We want to hear the normal breath sounds (or nothing at all) equally on both sides of the chest. Diminished sounds on one side may indicate a pleural cavity fill with fluid or pneumonia where the lung is not able to expand properly, or where the air sacs and small bronchi are filled with exudates. Sometimes sounds from the upper airway can be “referred” down into the chest and you may hear a rattle or “snore” that originates in the soft palate or nasal cavity. One thing we don’t ever want to see on a pig is open mouth breathing or gasping. Those pigs are in extremis. Even pups at birth that do this frequently need vigorous resuscitation to be saved. Assessing the circulatory system and consequently the effectiveness of overall oxidation can be seen in the ears of light colored animals and in the foot pads. Pale membranes can be seen inside the mouth or by lowering the lid to look at the conjunctiva. Normally, expect to see a fairly dark pink conjunctiva/mucous membranes. If they are bluish tinged, the animal may not be oxygenating appropriately and if too pale, there may be blood loss, or circulatory collapse.

Reproductive/Elimination- The testes in the boar should be present and in the scrotum and should be approximately of the same size. Boars do have an open inguinal canal and to some extent can raise and lower them within this canal. Not being in proper place however can be a Disqualification from Competition. If one side is a lot larger than the other, think of the possibility of an inguinal hernia where excessive fat, mesentery or even loops of bowel have become situated within the scrotum. The penis should not appear swollen or sore and should be within the sheath. The penis can prolapse and results are variable on whether they remain prolapsed or after replacement, the boars regain the ability to pull the penis back within the sheath. Boars can get infections of the sheath and penis which cause discomfort and will keep the boar from breeding due to the pain. There is an article on boar issues on the ACBA website.

Sows should not appear swollen and sore in the area of the vulva although during heat the area may be mildly swollen and reddened. Look for grit in the hairs around the vulva. Cavies as a species have a lot of minerals and grit in their urine. If however the animal is crying when it urinates, an infection may be present. The vulvar area may get very excoriated with a mixed flora dermatitis when the animal has

cystitis. It will clear up when the urinary tract infection resolves but healing can be hastened by washing and drying the area and putting a human yeast infection product on it. The vagina of a sow may prolapse if labor has been hard or the pups are large. When it is out only about an inch, there is a good chance of cleaning and lubing it up, replacing it and having it stay put. Prolapsed vaginas not associated with pregnancy and/ or delivery are more problematic.

Prolapsed Rectum- Usually the animal will prolapse a cm or two of rectum. It is my opinion that you have to give a very guarded prognosis for a prolapsed rectum. It can occur with parasitism or diarrhea (especially coccidia), but it can seemingly occur randomly. Controlling the urge the animal feels to continually push the abnormal feeling rectum out is difficult. Lidocaine, a numbing agent, has been used on the rectum before replacing it, but the results are dismal. It doesn't seem to stop the animal from straining and pushing the rectum right back out.

Mammary glands need to be checked on both boars and sows. Pigs will have a significant fat pad at that site no matter the sex when they are well conditioned. Masses have a different consistency and are generally firmer/lobular/ BB-like in nature. Both boars and sows may have mammary gland tumors. Don't be fooled by normal fat. MMG tumors are not a common finding and are generally found in older animals.

Urine and Feces- Is the animal passing both and are they normal in appearance? Clean tubs with no bedding are excellent for collecting a urine sample and urine test sticks are invaluable in assessing what appears to be normal urine. Pink to red urine almost always indicates a cystitis which may or may not be caused by a pathogen. Palpate the lower abdomen for pain and to see if a ping-pong ball/ shooter marble sized firm object in the lower abdomen/pelvis can be felt. This may represent a pig with a blockage in the urethra and large bladder- a true medical emergency.

Musculoskeletal- Observe how the animal is moving. Is limping present and if so, is it one foot or generalized? Is the animal circling, twitching, seizing, and can you characterize what you are seeing? Do any bones appear broken? Symmetry is your friend. If you see a difference in the limbs from one side to the other, determine which side is normal and then characterize what you see on the abnormal side. Examine the footpads, look for corns and check toenails. Does the animal have appropriate muscle mass or is it skin and bones?

Abdomen- gently palpate the abdomen for pain and/or abnormal masses. Things to note are pain in the upper abdomen, bloating, solid masses, enlarged bladder. A painful abdomen may indicate a diseased gall bladder, a cecal torsion, a blocked urinary tract, etc. Abdominal pain is always a very troubling sign.

Again, the more information that the owner has in terms of both history and physical exam, the more valuable the consultation will be, leading to a better chance of an accurate diagnosis and therapeutic plan.

