

# Veterinary Care for the Companion Pot Bellied Pig

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## INTRODUCTION

(Vietnamese) Pot Bellied Pigs (VPBPs) have been kept as pets for the last several decades. They are often indoor and outdoor pets and are also used as therapy or assistant pets. In this talk, we will discuss some of the common husbandry things, restraint techniques, medical and surgical situations and common pharmaceuticals used when working with pet pigs. In many ways, they can be treated like dogs. However, it is important to remember that they are still technically a 'food' animal.

## HUSBANDRY

Here are some of the normal exam values of pot bellied pigs: Temperature (rectal): 99–102°F; HR: 70 to 120 bpm and RR: 20 to 28 bpm. Pot bellied pigs seem to be fine as a solo pet but can also do well with dogs and cats. They love to burrow in blankets or straw. They also like to root around in the dirt - these are normal behaviors and should be provided for them. Pot bellied pigs are smart and inquisitive, can be easily house trained and trained to do tricks. It is good to know that pot bellied pigs do grow a 'winter' coat and do shed in the spring time. New owners may not know this and become concerned. These pet pigs can live into their late teens.

**Vaccinations.** When kept alone or with no exposure to other pigs, few if any vaccinations are necessary.

As a safety precaution, I recommend to give an annual rabies vaccine but realize that there are no rabies vaccines currently that are labeled for use in pigs. Another vaccination that may be considered is tetanus - however, pigs are not as sensitive to tetanus spores as other 'food' animals. If you are working with a 'herd' of pot bellied pigs, the following vaccine combinations may be indicated (follow the label dosing and booster recommendations).

- *Pastuerella hemolytica*, *Erysipelothrix insidiosa* (*rhusopathiae*), *Hemophilus pleuropneumonia*, *Bordetella bronchiseptica*
- Leptospirosis

**Anthelmintics.** Should be performed on an as needed basis based on fecal egg counts and/or the presence of ectoparasites. The most common anthelmintics given to VPBs include fenbendazole and/or ivermectin.

**Routine foot trimming.** Is usually done 1–2 times per year. Equine hoof nippers, goat/sheep hoof trimmers and a Dremel can all be used to do nail trimming.

**Tusk management.** Males develop large tusks that are commonly dremmeled (or cut) to a blunt point.

## RESTRAINT

If you have ever tried to work with a VPBP, you know that just touching them can result in **high pitched** squeals! They can be difficult to restraint but here are some tips: 1) wear earplugs when working with them; 2) refrain from using a hog snare - it doesn't go over well with the owner; 3) pin them between a door and wall; 4. Place them on their butt leaning back against a holder/technician who is holding their front legs. The later is the best way to restrain the pig for foot trimming or other minor procedures. Asking the owner to administer acepromazine orally about 2 hours before the procedure can calm the pig and reduce the vocalization and movement of the pig. Chemical restraint typically includes the use of xylazine and/or tiletamine/zolazepam (Telazol®). Intravenous injections can be very difficult therefore, IM injections are usually used. Simply 'gassing' down a pig can be done but **remember** that this gives no pain relief.

## **MEDICAL SITUATIONS**

### **Arthritis**

Geriatric pot bellied pig commonly can develop arthritis - especially overweight animals. The most common sight of arthritis in a VPBP tends to be the elbows. There are no approved 'joint' supplements for pot bellied pigs. Various therapies have been tried which include weight loss, steroidal joints injections, long term oral NSAIDs (carprofen, phenylbutazone, meloxicam) and/or injectable PSGAGs (Adequan®) supplements. Treatments commonly used for dogs have frequently been used in an off-label manner on VPBPs.

### **Foreign Bodies**

Due to the rooting nature of pigs, they can get foreign bodies (fox tails) in their nose, ears or eyes. Presentation would be similar to a dog - sneezing, shaking the head/ears, blood or discharge from the eyes or nose or ears. Injectable or general anesthesia (along with an otoscope and alligator forceps) is needed to facilitate looking for and removing the foreign body.

### **Dry/Flaky Skin**

A frequent owner concern is dry/scaly skin on the pigs. This is most noted on the dorsum of the pig. This is common and rarely pathologic. Owners can supplement the diet with Vitamin E and/or Omega fatty acids.

### **Obesity**

Unfortunately, one of THE most common problems seen in pigs (with several resultant secondary problems) is obesity. VPBPs should NOT be feed regular swine feed - it is meant to put weight on production animals. There are specific VPBP formulations of diets on the market that should be used and feeding instructions should be followed. Ideally a regular VPBP will receive ½ to 1 cup of a pot bellied pig pellets twice daily. Also, they should **not** be given dog food on a regular basis as they can contain more calories than they need. Give clients the option to feed healthy treats such as carrots, broccoli, apples, grapes, etc., instead of crackers or potato chips. Prevention can be difficult but weight loss is even more difficult.

### **Behavior Issues**

Keep in mind that even though pigs can live well with other animals, each species has their own defensive responses that the other species may not know how to 'read' and appropriately respond to. Owners should be instructed to be careful with toys and food being shared.

### **Toxic Ingestion**

Anything that could be toxic to a dog would likely be toxic to a pig. Charcoal or mineral oil can be administered for an ingested toxin if the exposure was recent. It would not be recommended to pass an NG tube in an awake pig.

### **Visual Impairment**

This can be due to either age related changes in the eyes or more commonly from obesity that has caused excessive fat in the brow of the pig which it turn obscures the field of vision for the pig. In either case, the pig may exhibit behavioral changes. Weight loss rarely reverses the overhanging brow. A surgical procedure (a face/brow lift) has been described to correct the problem of the overhanging brow. This is rarely performed.

## **SURGICAL SITUATIONS**

### **Abdominal Surgery (GI Foreign Body)**

Pigs will eat most fruits and vegetables but if they have access to fruits with large pits (stones) this can be dangerous to the pigs. Often they will eat the entire fruit - including the pit. This becomes a GI foreign body that may result in the pig needing abdominal surgery. Presentation is similar to a dog with a GI foreign body - vomiting and anorexia. Radiographs may help determine the presence of a stone. When performing abdominal exploratory, the spiral colon should be inspected first. \*\*Pig mesenteries are very friable.\*\* Appropriate antimicrobials and NSAIDs should be administered.

## **Castration**

Typically this is performed on relatively young males. It should be done under injectable or general anesthesia. A closed castration approach should be taken and the internal inguinal ring needs to be closed to prevent the possibility of intestinal evisceration. Appropriate pain control needs to be considered and administered.

## **C-Section**

When required, a C-section can be performed under general anesthesia with an approach very similar to a dog. \*\*Special note: A pig's uterine tract is **very** long and it is easy to miss a piglet in the birth canal. Additionally, the uterus and its mesentery are very delicate and bleed easily. Commonly, the uterine incision is closed and over sewn to prevent any leakage into the abdomen. Antimicrobials and NSAIDs should be administered. Oxytocin is commonly administered **after** the uterine incision is closed.

## **Ovariohysterectomy**

This is ideally performed on a young pig that is over 15 lbs. Either a ventral midline approach or a flank approach can be used. It is not recommended to use a spay hook due to the friability of the uterine mesentery as well as the friability of the intestines. It is NOT recommended to perform an ovariectomy alone as this could predispose the pig to uterine tumors (leiomyoma or leiomyosarcoma) later in life.

## **Urolithiasis**

Although not as common as in small ruminants, VPBPs can develop urolithiasis which is more likely to occur in a castrated male than in a female. Most often the pig will be presented for 'constipation' as the owner believes that they are straining to defecate when in reality, they are straining to urinate. An abdominal ultrasound should be performed and the bladder should measure less than ~ 8cm in diameter. If the bladder is larger than ~ 8cm, it would be suggestive of urolithiasis. It is important to know/remember that a male's bladder can't be directly catheterized due to the presence of the urethral diverticulum near the neck of the bladder. The gold standard is to perform a tube cystotomy which places a Foley catheter through the abdomen into the bladder which remains in place to allow for bladder emptying for two plus weeks.

## **ANESTHESIA CONSIDERATIONS**

For simple procedures requiring anesthesia, pigs can be maintained on inhalant anesthesia with a mask over their snout. Pigs are obligate nasal breathers so the mask does not need to cover the mouth. For longer anesthetic procedures, they should be intubated. It can be difficult to intubate pigs. They have a relatively small trachea (compared to their body weight). The most common ET tube sizes to use on an adult would be in the #4-6 range. A long (10 inch) laryngoscope blade is needed to be able to visualize the arytenoid cartilages and a stylet is also helpful to guide the ET tube into the trachea. It is helpful to have an assistant distracting the jaws with tubing or soft rope. Be careful not to traumatize the pharyngeal region. Venous access can be a challenge. Most commonly, an auricular vein is catheterized with a 22 gauge catheter to administer IV fluids or other medications. Femoral or cephalic veins may be used also.

## **TREATMENT/MANAGEMENT TIPS**

When trying to encourage a pig to drink/rehydrate, offer them **diluted** electrolyte drinks. (Examples: Pedialyte®, Gatorade®). They seem to like the sweetness of the flavored drinks and are more likely to drink them than plain water.

Canned pumpkin puree can be used to address constipation.

If trying to administer oral medications (or mineral oil or charcoal), **low-sodium** soup broth can be a good method to accomplish this.

Pigs can easily become sunburned (especially where they have white/pink skin). Protect them with shade or infant sunscreen lotions.

## **PHARMACEUTICALS**

### **Antibiotics**

**Oral:** Amoxicillin trihydrate/clavulanate potassium (Clavamox®), tylosin tartrate (Tylan®), tetracycline and sulfonamides are all used. **Injectable:** Ceftiofur sodium (Naxcel®); ceftiofur hydrochloride (Excenel®); florfenicol (Nuflor®); procaine penicillin G are injectable antibiotics that would likely be only administered by the veterinarian. When possible, it is advised to use medications labeled for use in pigs and follow label instructions. When using medications off-label, remember to inform the client of withdrawal times.

### **NSAIDS**

Most commonly used: carprofen, firocoxib, meloxicam, flunixin meglumine, and phenylbutazone.

### **Sedatives/Tranquilizers/Anesthetics**

Most commonly used: Acepromazine, ketamine; midazolam; tiletamine/zolazepam and xylazine.

### **Miscellaneous**

Lidocaine; oxytocin.

## **REFERENCES**

1. Boldrick L. *Veterinary Care of Pot-bellied Pet Pigs*. 3rd ed. Orange, CA: All Publishing; 2009.
- George L. *Veterinary Management of Miniature Pigs*. UC-Davis College of Veterinary Medicine; 1993.