INTUBATION OF SELECT EXOTIC SPECIES FOR THE VETERINARY TECHNICIAN

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Endotracheal intubation is crucial to maintain an open airway during anesthetic procedures. To minimize stress during the induction process, premedicate with a combination of midazolam and butorphanol. Once the preanesthetic has taken effect, usually in about 10 minutes, proceed with induction with isoflurane or sevoflurane using a clear facemask. A clear facemask will allow observation of the nose and mucous membrane color.

The oral cavity should always be cleared of food prior to intubation. This can be done by swabbing the oral cavity with moistened cotton-tipped applicators. Endotracheal (ET) tubes should be sterile to very clean, atraumatic, and free of disinfectant or other possible irritants. ET tube type and size selection is based on species and size of the patient.

RABBITS

Premedicate with midazolam 0.25–0.5 mg/kg and butorphanol 0.2–0.4 mg/kg. Wrap the rabbit in a towel using the “bunny burrito” technique. Administer isoflurane or sevoflurane using a 3- to 5-inch-diameter clear facemask.

Rabbits require a range of small, uncuffed ET tubes (2.0–3.0) without stylette. They have a small tidal volume and require an anesthetic circuit with little dead space. As a general rule, a 2.5-kg rabbit can be intubated with a 2.5-mm ET tube. After induction, place the rabbit in sternal recumbency with the neck hyperextended so that the proximal trachea is perpendicular to the table. The tube is inserted on either side of the incisors and advanced. The point where the tip of the tube is closest to the glottis can be demonstrated in two ways: by listening through the other end of the tube for the point where the sound of air movement is loudest, or by watching for condensation inside a clear ET tube; membrane color.

This is likely associated with the use of any amount of force to guide the tube into the glottis.

FERRETS AND SKUNKS

Premedicate with midazolam 0.25–0.5 mg/kg and butorphanol 0.2 mg/kg in ferrets and midazolam 0.25–0.5 mg/kg and butorphanol 0.2–0.4 mg/kg in skunks. Scruff the patient and administer isoflurane or sevoflurane using a 3- to 5-inch-diameter clear facemask.

Ferrets and skunks are intubated via orotracheal intubation with direct visualization of the glottis. In general, ferrets can be intubated using a non-cuffed 2.5- to 3-mm ET tube with a stylette and skunks can be intubated using a 2.5- to 4-mm non-cuffed tube with stylette. The technique is straightforward and similar to that in cats and dogs. Applying topical lidocaine to the glottis may help prevent laryngospasm.

PSITTACINES

Premedicate with midazolam 0.25–0.5 mg/kg and butorphanol 2–4 mg/kg. Restrain the patient by wrapping in a towel and holding the neck in one hand while keeping the towel securely wrapped around the body with the other. Then administer isoflurane or sevoflurane using a 1- to 5-inch-diameter clear facemask depending on patient size.

Psittacines are intubated via orotracheal intubation with direct visualization of the glottis. In general, psittacines can be intubated using a non-cuffed 10–30 Cook ET tube. A stylette will be needed for placement of the 10–15 Cook ET tubes. After induction, the patient is placed upright by the restrainer and a cotton-tipped applicator is used to move the tongue forward in the mouth to give better access to the glottis. The tube is inserted on either side of the upper beak and advanced into the glottis. The ET tube should provide a good seal with the glottis but should not fit tightly.

Risks with intubation of the avian patient include tracheal stenosis, which can be caused by inflated cuffs and rough intubation. Complete tracheal rings that prevent tracheal expansion may increase the risk.

REFERENCES

Table 1. Suggested Preanesthetic and Endotracheal Tube Size/Type for Select Exotic Species

<table>
<thead>
<tr>
<th>Species</th>
<th>Preanesthetic</th>
<th>ET Tube Size/Type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Midazolam</td>
<td>Butorphanol</td>
</tr>
<tr>
<td></td>
<td>(mg/kg)</td>
<td>(mg/kg)</td>
</tr>
<tr>
<td>Rabbit</td>
<td>0.25–0.5</td>
<td>0.2–0.4</td>
</tr>
<tr>
<td>Ferret</td>
<td>0.25–0.5</td>
<td>0.2</td>
</tr>
<tr>
<td>Skunk</td>
<td>0.25–0.5</td>
<td>0.2–0.4</td>
</tr>
<tr>
<td>Psittacines</td>
<td>0.25–0.5</td>
<td>2–4</td>
</tr>
</tbody>
</table>

"2- to 4-mm standard non-cuffed tube without stylette"  
"2.5- to 3-mm standard non-cuffed tube with stylette"  
"2.5- to 4-mm standard non-cuffed tube with stylette"  
"10-15 Cook with stylette or 20-30 Cook without stylette"