Animal Care Expo 2021
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An oral cat contraceptive option as you manage spay delay

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Non-surgical fertility control

MISSION: to advance non-surgical sterilants and contraceptives for cats and dogs, and to promote their global accessibility

VISION: a world in which dog and cat populations are effectively and humanely managed, improving the lives of dogs and cats and the people who care about them.
Agenda

Megestrol Acetate (MA) as a female cat contraceptive
  - What is it?
  - Some usage & pilots during COVID spay delays
  - Navigating challenges

Update on R&D for a permanent sterilant for female cats

Questions
But first, a quick poll
Relooking at Risks and Benefits of Fertility control
What is Megestrol Acetate (MA)?

**Synthetic progestin, oral**

Women: to treat breast and endometrial cancer

Dogs: Ovaban - FDA registered to postpone estrus

Cats: available off label in U.S. to postpone estrus.

Decades of use internationally in countries where approved.

Veterinary brands:

Megecat®, Ovarid®, Suppress®, Chronopil®, Canipil®, Oestruval10®, Felipil®, MiniPil®, Pilucalm®, PillKan®, Megedine®, Opochaleurs®, Pruritex®, Estropill®, Estroblock®
How Does Megestrol Acetate Work?
Postpones Estrus/ Stops Ovulation

Hypothalamus → GnRH → Anterior pituitary gland → LH, FSH → Ovaries → Sex hormones (Estradiol, Progesterone)

this event is POSTPONED
MA Available Formulations

- Veterinary prescription
- pill or compounded liquid
- liquid recommended
- ~180 day shelf life*
- 10 mg/ml = “sweet spot”
- very affordable
Megestrol Acetate Dosing

“Low Dose”* for Individual Cats
0.625 mg/kg = ~ 2.5 mg/cat/week
Studied & dosage for many commercialized products.
* if in heat.

“Micro Dosing” for managed grps.
0.1 to 0.2 mg/kg/cat weekly
Lower dose not studied, anecdotal effectiveness

* If cat is in heat:
5 mg dose EOD in week 1, then normal dosing starting week 2

One Cat, One Dose, One Week
Megestrol Acetate Efficacy

- Decades of widespread usage with reported success but..... Very little hard data for low-dosage treatment.

Oen 1977*

- 244 cats
- 30 weeks
- Two litters
- 21 with signs of heat

Study went 30 weeks; has been basis for duration reco.

Megestrol Acetate

Side Effects

**Micro**
0.1 - 0.2 mg/kg/week
- No published studies

**Low**
0.625 mg/kg/week
- Increased appetite
- Weight gain
- Haircoat changes

**Intermediate**
0.625 mg/kg/day
- Transient glucose intolerance
- Adrenocortical suppression
- Haircoat changes

**High**
> 0.625 mg/kg/day
- Mammary tumors
- Uterine lesions
- Pyometra
Use case:

**Owned and Shelter Cats**

- Managing wait for a clinic appointment during spay delay
- Shelter cats coming of age in foster homes
- Cats adopted intact while waiting for appointment.

/manage heat behaviors in home even if no access to males/
Use Case: MA while awaiting TNR & for hard-to-trap community cats

Community cat case study

• 20-acre government housing complex in Florida
• 1999 to present: managed w/ TNR & adoption
• MA at microdose for new cats (even if sex unknown), hard to trap cats
• One un-trappable cat had 9 litters, then treated successfully with MA 2008-2013
• Cat population peaked at 135 and currently at 10
• “The only side effect from the medicine is a positive one: the mom cats start to look healthy.”
What about?

- Male cats
- No fertility control

Kittens < 4mo
Unknown risk/benefit profile

Pregnant cats
Rare Reports of stillborns
Kitten masculinization
ASPCA Statement of Support for Veterinarians Considering Megestrol Acetate as a Temporary Contraceptive for Female Cats During COVID-19

Widespread decrease in access to routine spay/neuter during the COVID-19 pandemic has raised valid concern that many cats will breed, resulting in an overwhelming number of kittens that could far outnumber available adoptive and foster homes. Making the situation even more challenging are the potential...

Non-surgical Contraception – A Potential Lifesaver During COVID-19

April 21, 2020
Updated: January 15, 2021

Cat Contraception Megestrol Acetate (MA) A Useful Tool During Covid

Alley Cat Allies is Working to Keep Cats Fed and Cared for During the COVID-19 Crisis. Information will be updated regularly as this crisis unfolds.

HumanePro

Animals: Covid-19 Shelter Toolkit

Help animals in the shelter and your community

Recording: An emergency contraception option for cats during Covid-19 delay. Read the Alliance for Contraception in Cats & Dogs statement and resources about contraceptive appropriate for well-monitored cats for up to 30 weeks during spay delay is affordable and available from veterinary compounding pharmacies. Dr. Julie Levy (UC Medicine Education Univ. of Florida), and Dr. Mike Greenberg (Maddie’s Fund) discuss webinar available on Maddie’s and from ACC&D’s websites. Watch the recording.
Resources

**DOSAGE TRACKING FORM**

<table>
<thead>
<tr>
<th>Cat Name/ID/Description</th>
<th>0.1 to 0.2 mg/kg per cat only</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.625 mg/kg per cat, typ.</td>
</tr>
<tr>
<td></td>
<td>5 mg per cat 3 times in the</td>
</tr>
<tr>
<td></td>
<td>cat in heat</td>
</tr>
<tr>
<td></td>
<td>Other</td>
</tr>
</tbody>
</table>

**DOSAGE OF MA PRESCRIBED**

<table>
<thead>
<tr>
<th>Date</th>
<th>Amount of dose eaten</th>
<th>(Describe any changes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXAMPLE</td>
<td>1/1/20</td>
<td>75%</td>
</tr>
</tbody>
</table>

**Mixed into tbsp. of Friskies. Seems**

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**Tips for Monitoring Megestrol Acetate (MA) Doses & Side Effects**

**Keeping Track**

A Dosage Tracking Form is included to help you keep track of dose administration and any side effects per individual cat. You’re welcome to use this form, but it is not required. If you are administering megestrol acetate (MA) to multiple cats, we strongly encourage you to keep written records of dosages and any side effects by cat so that when you provide your data to us (by completing a survey), the information will be easily accessible.

**Rule of Thumb: One Cat – One Dose**

Remember to remove unspent food promptly. If you suspect another cat has eaten the medication, we encourage you to document the occurrence (e.g., using a separate Dosage Tracking Form) and note any changes to that cat’s behavior or physical condition.

**Ensuring Successful Administration and Monitoring for Side Effects and Effectiveness**

Using the Dosage Tracking Form or another method, record any information which may be useful for changes to that cat’s behavior or physical condition.

Hopefully MA will prevent estrus and pregnancy during administration. However, be sure to note any observations related to pregnancy or going into heat.

Some examples of a few other things to keep in mind:

- Vocalizing
- Attention-seeking behavior
- Demanding or pushy behavior
- Rolling on the floor
- Raising hind end into the air, especially when being stroked

**Signs of heat may include:**

- Vocalizing
- Attention-seeking behavior
- Demanding or pushy behavior
- Rolling on the floor
- Raising hind end into the air, especially when being stroked
Summer 2020 Survey results

Primary reason
93% did not use MA
7% used MA
93% did not use
Of non-users, 55% of vets, and 43% of non-vets would consider using MA in the future.
Pandemic Pioneers

Dianne Brown, DVM
Cat Adoption Team, Oregon

- Cats adopted intact
- Cats in foster
- Weekly 2.5mg dose, higher if in heat
Pandemic Pioneers

Toronto Humane Society
The Process

- Fall 2020
- Stakeholder engagement:
  - Toronto Feral Cat Coalition
  - College of Veterinarians of Ontario (regulatory body)
  - THS management, Board, staff
  - Community cat caregiver survey
- Presented risk:benefit, no attempt to convince
- Decision to use microdose (1mg/cat/week)
- Protocols, consent, information, communication, follow-up
Pilot Program

- Six small groups - 11 females
- Stillbirths – 2 cats in 1 group
  - 3 in one cat,
  - 1 in other - TNR done, pregnant, normal fetuses
- Administration has been easy
- Challenges:
  - Drawing up the small dose
  - Some cats don’t like wet food
  - Monitoring
Data collection

● Weekly follow-up calls:
  ○ Check-in
  ○ Clinical issues? (lethargy, teat enlargement, pregnancy, heat/mating behavior, appetite, hair coat, other)

● Clinical data collection at TNR

● Storing uterus and ovaries for possible future analysis
Least harms, risk-benefit framework

**Risks**
- Uncertainty - medication new to us
- Historical side effects at high doses
- Concerns about late start date

**Benefits**
- Anecdotally safe and effective
- Prevents heat and pregnancy
- Prevents neonatal kitten deaths
- Support for caregivers
- Another tool in the toolkit
VCPR – challenge for pets lacking a current vet or for community cats

• The Veterinarian-Client-Patient Relationship must be established during an in-person visit and is required for the practice of veterinary medicine
• Some states are waiving requirement for in-person visit to establish a VCPR during COVID pandemic
Medication Compounding

The customized manipulation of an approved drug(s) by a veterinarian, or by a pharmacist upon the prescription of a veterinarian, to meet the needs of a particular patient

- Mixing 2 medications
- Making oral suspensions from tablets
- Adding flavoring
- Transdermal gels

Dosage/format of MA for cats is best compounded.
Compounding laws vary by state

- "Office stock" can be used for pets owned by the shelter (including fosters)
- Individual prescriptions needed for privately owned animals and community cats

Compounding pharmacies can help navigate in each state

Telemedicine

• Telemedicine is the practice of medicine using technology to deliver care at a distance. A physician in one location uses a telecommunications infrastructure to deliver care to a patient at a distant site.

• Practice of veterinary medicine includes diagnosis, prognosis, treatment.
Summary

1. Megestrol acetate (MA) can prevent heat and pregnancy in female cats. Can also “halt” estrus at higher/more frequent dose
2. “Buy time” while waiting for spay surgery
3. Currently used low-dose MA maximizes efficacy/minimizes side effects
4. “off label use;” common in veterinary medicine, guidelines to follow
5. Veterinarian prescription and VCPR
6. Risk/Benefit assessment key; DEI considerations in judging for others
Breaking News – An injectible sterilant for cats

- Single dose, permanent treatment, female cats
- 2nd year breeding study successful
- Shift from grant-based project to drug development
- FDA regulation pathway key to timeline.
Questions

For more information:

www.acc-d.org
info@acc-d.org

Please reach out and share any experience with MA!
Continuing education code: CCM11