

Megestrol Acetate Pilot Program Report

March 2022



Background

COVID-19 has led to reduced TNR capacity. Population control is the cornerstone of the dramatic gains we have seen in animal welfare over the past several decades, and we share concerns that feline populations, particularly free-ranging populations, could quickly increase after a period of no/low sterilization.

Megestrol acetate (MA) is an oral contraceptive with substantial potential benefits for short-term contraception in cats. It is considered safe in low doses but there are limited published studies. It was recommended by shelter medicine experts and specialty groups such as ACC&D as a “band-aid” until TNR could be resumed at volume. To assess the safety and feasibility of MA in cats in our environment, we implemented a small pilot program for community cats in Toronto.

Objectives

To assess:

- The logistics and practicality of using MA
- Barriers and difficulties faced by caregivers
- Safety of weekly microdose MA
- Efficacy of weekly microdose MA

Recruitment

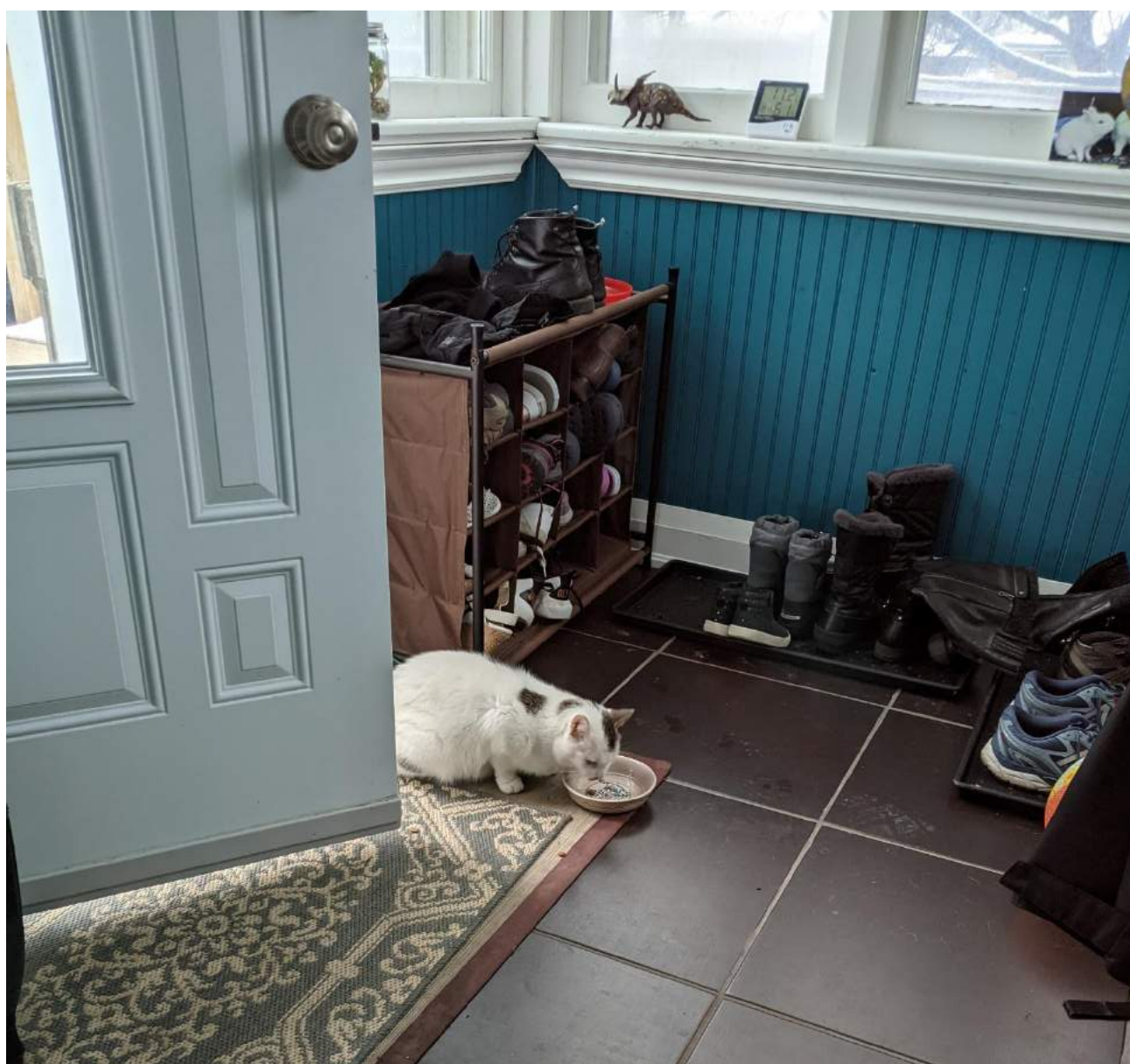
We sent out an electronic information sheet and survey through the Toronto Feral Cat Coalition. We provided extensive information about potential safety concerns. We received responses from 93 caregivers, of whom 49 (53%) indicated interest in MA and 13 (14%) said they might be interested but needed more information. The relatively low interest was most likely a combination of the novelty of the medication and the extensive list of possible risks and side effects.

Based on what we knew, we thought risks to the cats were low. However, we wanted to ensure the cats were not harmed and also wanted to avoid damage to our relationships with caregivers in the event of significant adverse effects. We were particularly concerned about dystocias, given that we only operationalized the project in late winter, by which time many existing pregnancies were anticipated. Given these concerns, we decided to enrol only small numbers to allow better control and monitoring.

Criteria and Design

All groups had direct caregivers who were willing to commit to initial counseling and weekly follow-up monitoring calls. Only small colonies were recruited, and only within the boundaries of the City of Toronto. We did not include volunteers who assisted multiple caregivers but were not directly responsible for the cats.

A veterinary-client-patient relationship (VCPR) was established using virtual consultations. The College of Veterinarians of Ontario allows us to care for groups of



community cats as a “herd”. We were required to have photographs, names and descriptions for each individual cat in the pilot. At that time, telemedicine regulations were relaxed so that virtual consultations and prescribing were allowed.

We prescribed a microdose of 1 mg per female cat per week, based on previous reports for community cats. We preferred the greater margin of safety of the microdose compared with the low dose (2.5 mg per cat per week), given that intake could not be closely controlled. We used a compounded liquid MA product containing 10 mg/mL, at a cost of CA\$1.25 per mL or CA\$0.13 per cat per week. Every effort was made to ensure that the caregivers understood that the MA was intended for short term use, to help them trap the cat for TNR, and to prioritize TNR for these cats. The pilot was limited to 30 weeks because this was the longest reported duration for similar MA use in the literature. Toronto Humane Society covered the cost of medication and services.

A volunteer contacted each caregiver weekly to ask a series of monitoring questions. A veterinarian was available to respond to questions or concerns.

The monitoring questions addressed:

- Ease of use, practical difficulties, ability to monitor intake
- Medical concerns (listed individually each week)
- Positive side effects (e.g. coat looks better)
- Heat, pregnancy, successful trapping and TNR

A dedicated form was used at TNR, and collected the following information:

- Standard physical examination findings
- History of dystocia and reason for presentation (routine vs. medical concern)
- Coat quality
- Abdominal distension
- Teat development, lactation
- Pregnancy
- Appearance of uterus and ovaries
- Presence of mucometra, pyometra, mummified or macerated fetuses
- Other abnormalities at surgery

The uterus and ovaries were preserved in formalin for a small number of cats and non-MA “controls” from unrelated groups, but no analysis was pursued.

Results

The project only began in February 2021, by which time we expected many cats to be pregnant. We enrolled six small groups containing a total of 11 female and 7 male cats. To the extent possible, males were not given MA.



- **The logistics and practicality of weekly oral MA**

The cost was manageable for us. Caregivers found it easy to give the medication, with one having initial questions about how to measure out the small volume, and a few reporting that a few cats did not like wet food and ate it slowly.

The pilot was resource-intensive. However, in future we will treat MA like any other extra-label drug, and this will make the logistics much easier.

Comment: The regulatory framework is such that establishing a VCPR for a group of community cats is relatively time-consuming. However, the “herd” VCPR only needs to be established once, with new cats added as they access care. There is considerable ambiguity about unsocialized community cats, which occupy a niche somewhere between wildlife and domestic pets. We are sensitive to this dynamic. Many caregivers have close emotional ties with the cats. Therefore, managing them as a “herd” of “domesticated” animals may be more realistic than attempting to manage them as “wildlife”. This is inherently more labour-intensive.

- **Barriers and difficulties faced by caregivers**

The caregivers had little difficulty administering the medication. They had some challenges with monitoring, but a larger-scale program in future would not include this level of monitoring.

- **Efficacy of the microdose of MA**

After excluding 3 pregnancies that were calculated to be present before MA was started, 1 cat (of 8 non-pregnant) became pregnant during MA administration. Given the timing of initiation of MA and the small number of cats, it is difficult to draw any firm conclusions about efficacy, but these results were promising.

- **Safety of the microdose of MA**

Of the four pregnant cats, 1 had stillborn kittens and 3 had normal fetuses (TNR=1) or kittens (live births=2). We have no baseline data for the rate of stillbirths in cats not receiving MA, so are unable to interpret the significance of the stillborn litter. No dystocias were reported. 7 female cats were spayed and 2 males were neutered. No medical concerns were identified by the caregivers or at surgery. No uterine or ovarian abnormalities were found at surgery.

Conclusions



The microdose and low doses of MA appear to be safe and effective based on what is currently known, and our experiences were positive. A randomized controlled study comparing microdose MA and placebo in simulated community cat groups would be of immense benefit. Even without this, and despite the lack of definitive data from our pilot, we feel confident and comfortable about using MA in future. We see its primary application as a short-term “band-aid” for both owned and unowned cats when spay surgery is unavoidably delayed.

We share the concerns of others that veterinary shortages, financial limitations and ongoing capacity issues caused by the pandemic could result in exponential growth of community (and possibly owned) cat populations. Contraception with MA is a reasonable way to help manage cat populations.

Any imperfect solution must be assessed within the framework of **risk, benefit, context and alternatives**. In a scenario of exponential population growth with inadequate spay/neuter capacity, the alternative to MA would be increased suffering and death in community cats through trauma and infectious disease, a backlash against “nuisance” cats, crowded shelters and/or a return to higher euthanasia rates. Microdose or low dose MA is an important tool to help mitigate these risks.



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