

# Should cysts stay or should cysts go?

*Understanding the endometrial cysts formation and impact  
improves the therapeutic choices*

Dr. Jérôme Ponthier  
DVM, M. Sc., Ph. D., Diplomate ECAR  
Equine Clinic, Liège University, Belgium



# Disclosure

*"I disclose that I have no relevant financial relationships with commercial interests."*

I also want to thank my teammates:

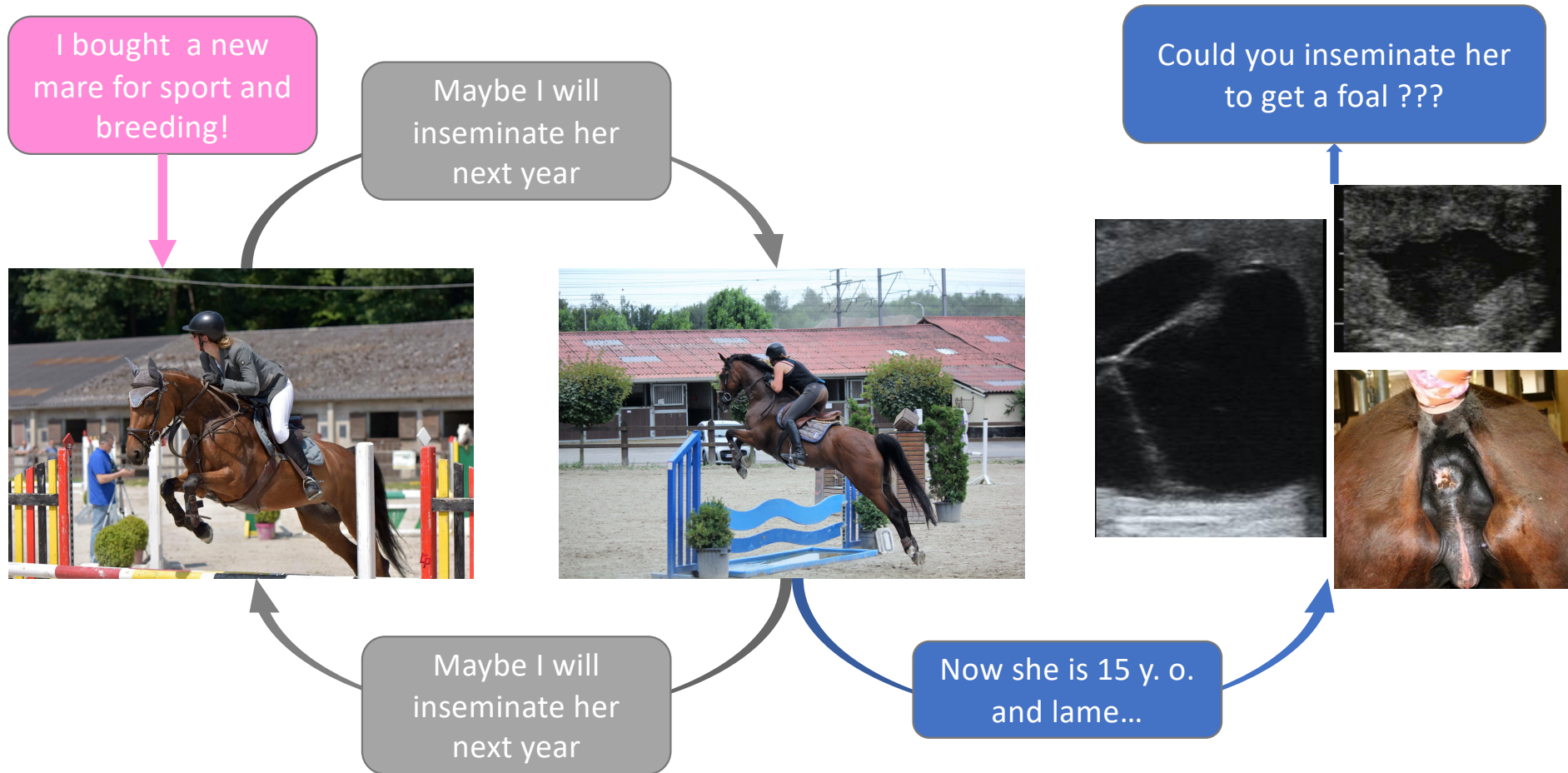
- Prof. Stéfan Deleuze, from the Equine Therio unit;
- Dr. Alexandra Salciccia and Dr. Geoffroy de la Rebière, from the Equine Surgery unit

# *Plan:*

1. Breeding sport mares is a sport!  
*Life cycle of a common sport mare in Belgium*
2. Why are there dark spots?
3. Why should I be concerned by cysts?
  - *The uterine health is the life insurance of the embryo*
  - *The difficult trek of the embryo*
  - *Is there really a foal on my day 14 picture?*
4. To treat or not to treat: that's the question...
  - *Why?*
  - *How?*
5. Conclusion:  
*Should the owner love his old mare or should he prefer a young recipient mare?*

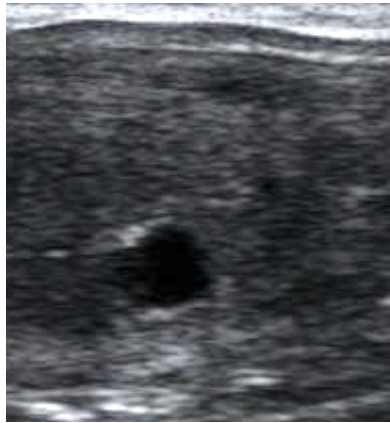
# 1. Breeding sport mares is a sport!

## *Life cycle of a common sport mare in Belgium*

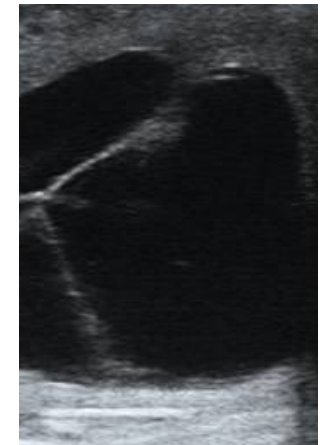




## 2. Why are there dark spots?

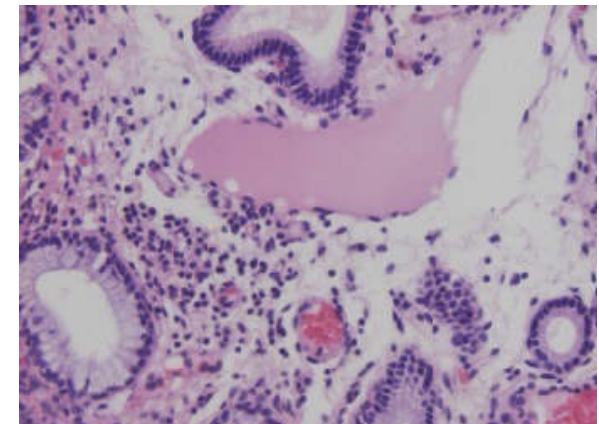
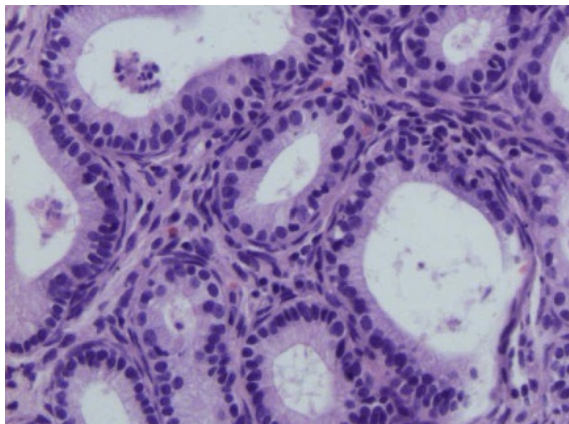


Sub-fertiles mares >10 y. o. :  
>55% mare with >1 endometrial cyst  
Kenney, 1978

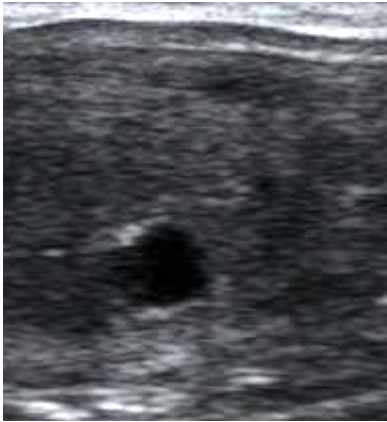


Small cysts <1cm:  
Endometrial glands

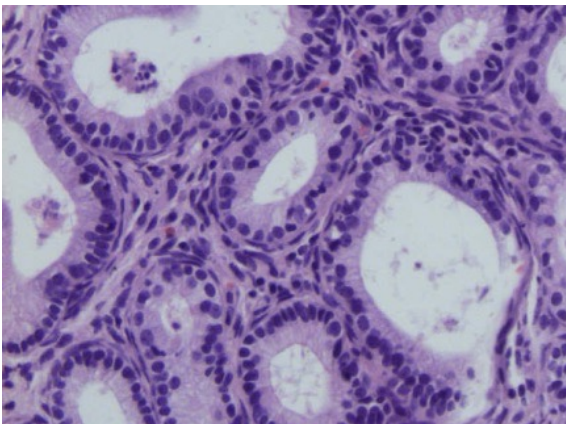
Large cysts >2cm:  
Lymphatic dilatation



## 2. Why are there dark spots?



Small cysts <1cm:  
Endometrial glands



### Etiology:

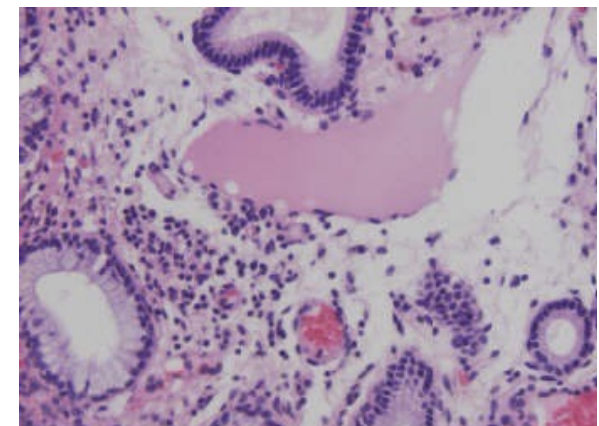
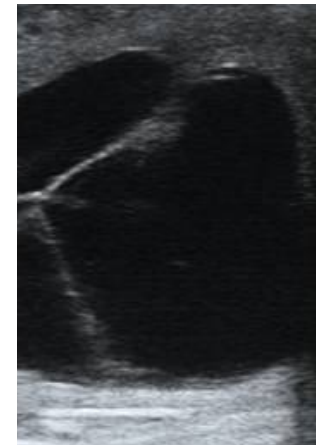
- Appear during pregnancy or periparturient period:
  - ↑ Estrogens during pregnancy:
    - Increased layers of fibrocytes  
(as seen in cystic endometrial hyperplasia in CN)

## 2. Why are there dark spots?

### Etiology:

- Uterine fibrosis
- ↘ Myometrium contractility
  - Stasis of lymph
  - Dilatation of ducts

Large cysts >2cm:  
Lymphatic dilatation



### 3. Why should I be concerned by cysts?

The pregnancy rates at Days 14 and 40 were significantly ( $P < 0.01$ ) lower in mares with cysts (77.6% and 71.4%) compared to mares without cysts (91.5% and 88.0%).

Tannus & Thun, 1995

Small cysts <1cm:  
Endometrial glands

Large cysts >2cm:  
Lymphatic dilatation

**Clinical significance:**

No consequence on fertility?

Vs.

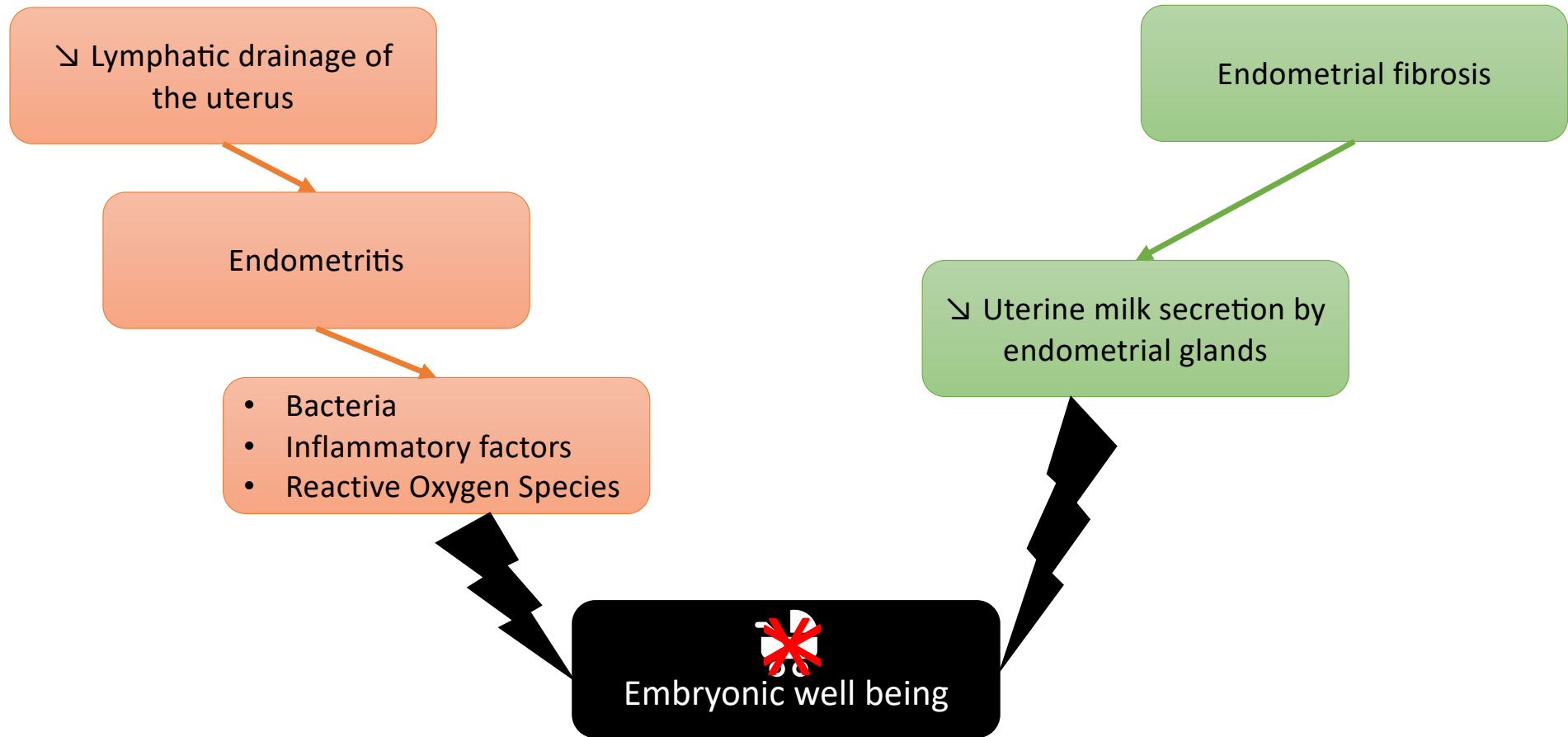
Increased number of fibrocytes layers and endometriosis

**Clinical significance:**

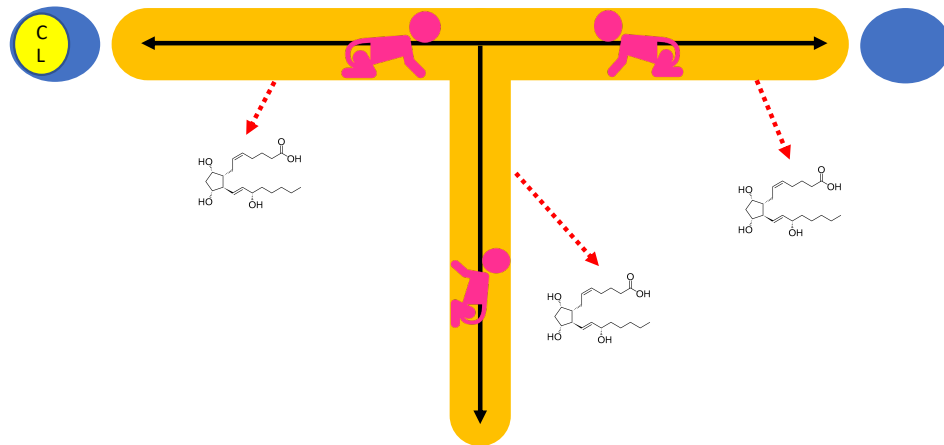
- Associated with impaired biopsy (fibrosis)
- ∨ Drainage of the uterus
- Interfere with embryo migration
- No micro-cotyledons facing cysts
  - ∨ placental exchange

### 3. Why should I be concerned by cysts?

*The uterine health is the life insurance of the embryo*



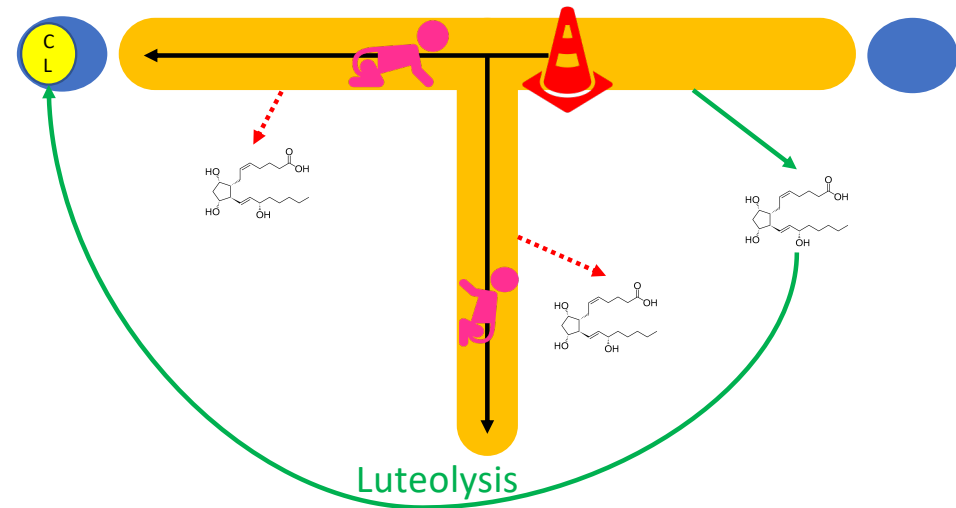
### 3. Why should I be concerned by cysts? *The difficult trek of the embryo*



#### Embryonic migration:

- D 6.5-7 → D 16-17
- Inhibits PG production by endometrium
  - No luteolysis

If there is a plug on the way:

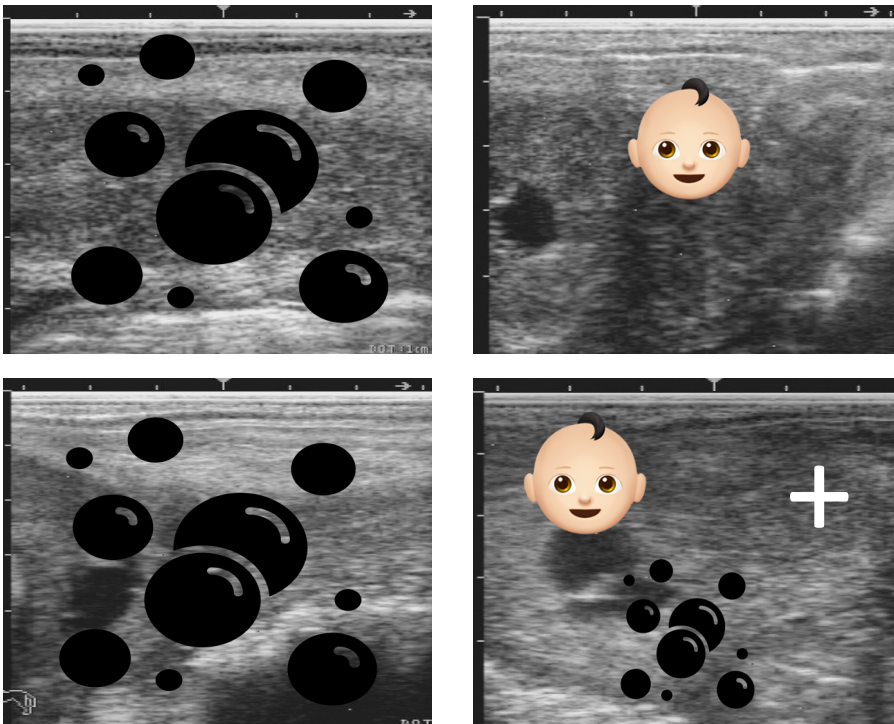


Luteolysis



### 3. Why should I be concerned by cysts? *Is there really a foal on my day 14 picture?*

First situation: embryo or cyst?



Second situation: where is the embryo?



**Endometrial cysts & pregnancy diagnosis:**

- ↑ Twin pregnancies mistakes
- Delays the early pregnancy diagnosis

## 4. To treat or not to treat: that's the question...

*Why?*

How easy is the pregnancy diagnosis?

Could the cyst(s) be confused with an early embryo?

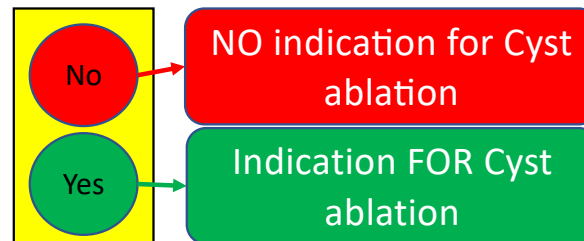
Do(es) the cyst(s) delay(s) the pregnancy diagnosis?  
➤ Leading you to miss some heats?



Are there evidences of early embryonic loss?

Pregnant mare > D 14 return to heat?

Early embryonic loss?  
➤ US evidence of luteolysis  
➤ Low Progesterone  
*Vs other pathologies?*

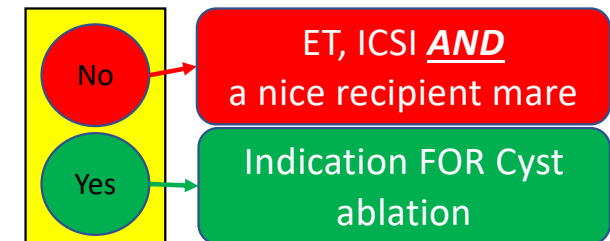


How fit is the genital tract?

Are there other concerns?

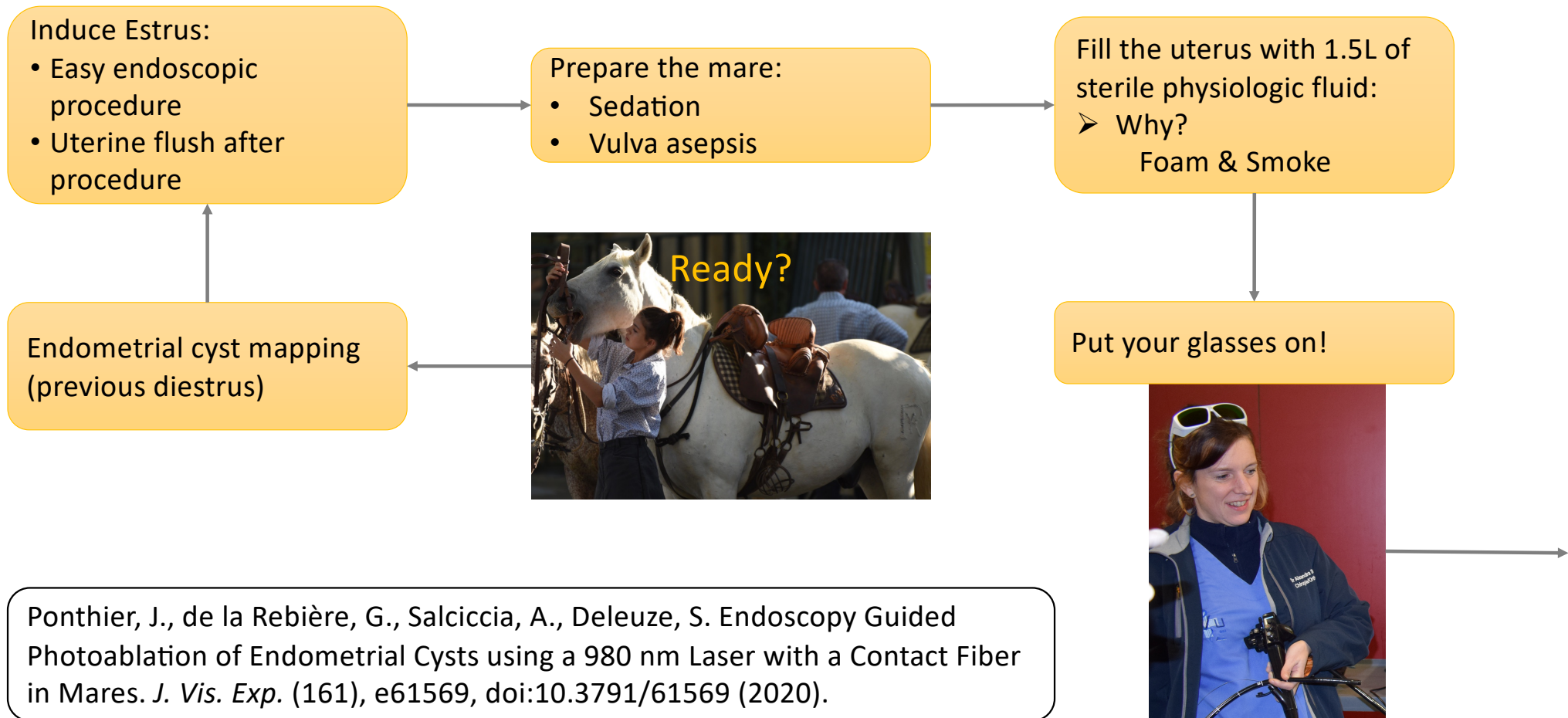
- Vulvar, vaginal pathologies
- Cervical pathologies
- Endometritis: swab – biopsy
- Endometriosis: biopsy

➤ Is there a good prognosis?  
➤ Can I treat the pathology?



## 4. To treat or not to treat: that's the question...

*How?*



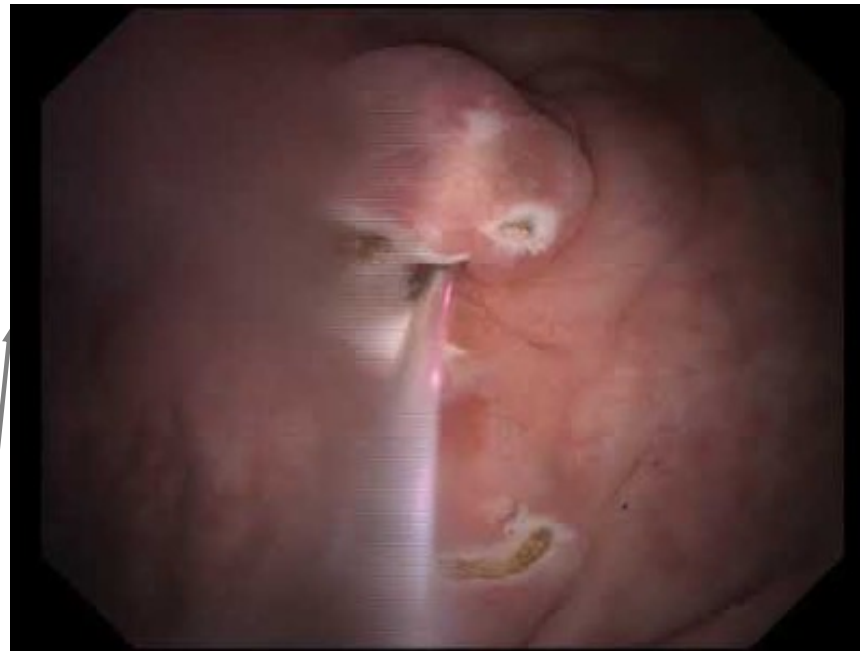
## 4. To treat or not to treat: that's the question...

*How?*

Once the endoscope is in the uterus:

- Close the cervix with your hand to keep fluids inside.
- Search the cysts
  - Can be time-consuming

Cysts are then cauterized with the 980 nm diode laser with a contact fiber set at 20–25W in continuous mode



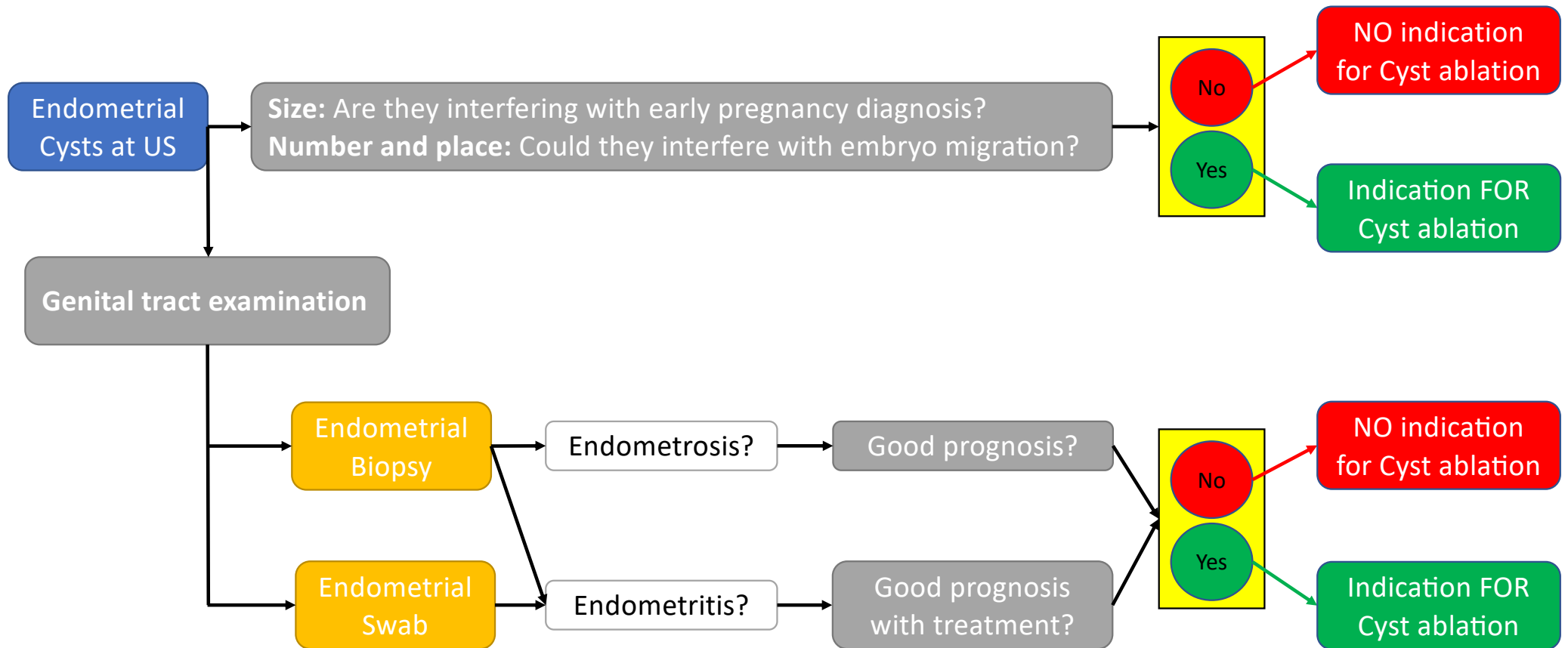
Remove your glasses!

Flush the mare just after

Repeat uterine flushes 1x/d  
➤ Until the collected uterine fluid is clean

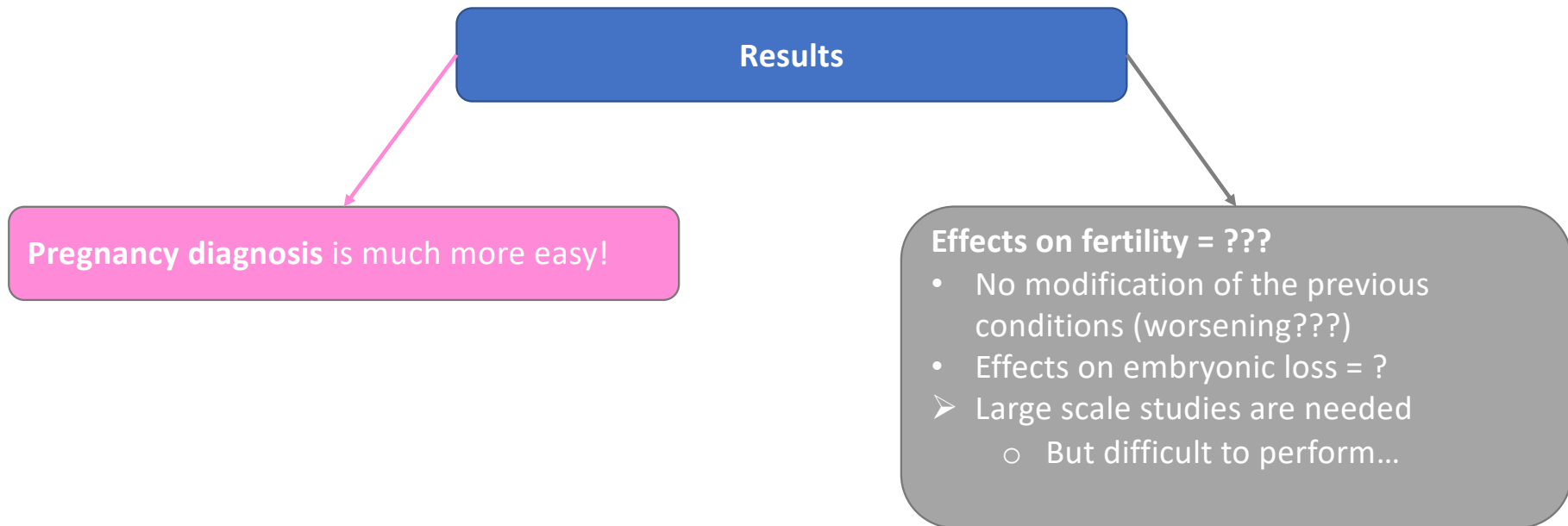
## 5. Conclusion:

*Should the owner love his old mare or should he prefer a young recipient mare?*



## 5. Conclusion:

*Should the owner love his old mare or should he prefer a young recipient mare?*





*Thank you for your attention!*

