

Progesterone-Mediated Reversal of Mifepristone-Induced Pregnancy Termination in a Rat Model: An Exploratory Investigation

Camilleri C and Sammut S

Published in *Scientific Reports*, 6 July 2023

doi: 10.1038/s41598-023-38025-9



Highlights of the Study – Technical version

- Mifepristone (and no progesterone) causes a complete pregnancy termination (abortion).
- Progesterone reverses the effects of mifepristone (i.e., reverses the abortion).
- Living offspring were present at the end of gestation in a majority of rats in the reversal group.
- Fetal heart rates in the reversal group were comparable to those of the normal pregnancy group.
- At the end of gestation, the successful reversal group was comparable to the normal pregnancy group and not the abortion group.
- In conclusion, this study confirms the potential for progesterone to reverse an abortion during the early stages of the abortion process.

Why do we need to study abortion-pill reversal?

- A large proportion of pregnancies end in abortion globally.
- Most abortions are now using mifepristone.
- Some women express regret after taking the first abortion pill (mifepristone/RU486).

How does abortion-pill reversal work?

- Mifepristone is the first drug given in an abortion.
- If a woman regrets her abortion, and has not taken the second drug, she can be given progesterone to reverse the abortion.
- Progesterone is the major hormone that is responsible for maintaining a pregnancy.
- Giving high doses of progesterone displaces the mifepristone and leads to a reversal in a high percentage of cases.

What this study showed

- This study showed the reality of abortion-pill reversal in an animal model.
- Rats that only received *mifepristone* (the abortion drug) showed 0% survival of the offspring at the end of pregnancy.
- Rats that received *mifepristone* AND *progesterone* showed living offspring at the end of gestation in a majority of cases (81.3%).
- The fetuses from in the abortion-pill reversal group were not different from those in the normal pregnancy group.

For more information contact: Dr. Stephen Sammut. email: drsammutlab@gmail.com

Lab Webpage: <https://sammutlab.com/> Social Media: @DrStephenSammut

