Emma Kogut

Link to news story: https://www.sciencedaily.com/releases/2022/02/220207100105.htm

Link to scientific study: https://academic.oup.com/biolreprod/article-abstract/106/5/879/6517228?redirectedFrom=fulltext&login=true

1. The subject of the sex study is how blocking a prostate-specific-antigen called serine protease prevents semen liquefaction in healthy men and leads to hyper-vicious semen. These hyperviscous semen and abnormal liquefaction can lead to infertility.
2. In the article this study is presented as a possible new form of non-hormonal, over-the-counter contraception. While this is mentioned in the study, the article definitely gives more credibility to this claim than there is evidence for. The study explicitly states that much more research needs to be done to draw conclusions about this method preventing pregnancies. Overall, the article is very fact based and explains the workings of the study well. It is biased in that it only explains how this new method would be good. The article compares the possible new method of contraceptives to the failure rates of current contraceptives. It does not mention any cons of the new method.
3. The title of the article is kind of accurate, but it is definitely being used as a sort of clickbait. While the study found that blocking serine protease can lead to infertility, it does not mention use as a contraceptive anytime soon. In fact, the study says that it is currently unknown if blocking semen liquefaction could prevent pregnancy.
4. This was an experimental study. It was done in a controlled setting in a lab.

5. The independent variable was the nonspecific serine protease inhibitor (AEBSF). The dependent variable was its effect on semen.
6. This study did a good job measuring what it set out to measure. When the researchers wanted to know if the impact of AEBSP was due to its inhibitory activity or just its toxicity, they ran the study again and added a neutralizing PSA antibody to confirm it was the inhibitory activity. One critique of this study was the sample size was only 5-6 men over the age of 18. A much larger sample size should be used to draw any real conclusions.
7. I am surprised by the results, however I was unaware that semen was ever in a non liquid form. After reading the research, the science behind it makes sense. It was fun to learn that even the researchers got their idea for the study from an accidental finding in mice.
8. If this method really wants to be used as a contraceptive for women one day, follow-up studies should research the effect of the AEBSP on preventing pregnancy in women. Starting on female mice may be the first step, but then researchers should use this new method on women in an ethical way and see if they get pregnant or not.