Review Article

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The abortion ban and mifepristone's threatening rise

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ABSTRACT

The recent imposition and overrule of the Roe V. Wade abortion law by the US government has created havoc in the state, predicting an alarming rise in mifepristone's self-usage. This abortion pill is a safer alternative than other methods of abortion which can lead to a rise in its overseas mailing. The potential threat of abuse and unsupervised ingestion of this abortion pill can cause detrimental complications, the emergency treatment of which has been stopped by health care providers. Additionally, the controversial debate on the overlap of post-abortion health care and legal investigations has generated fear among women to receive post-abortion care (PAC), if there is any complication, due to the fright of being prosecuted. This portrays a future threat of an increase in maternal mortality. Although, mifepristone's use in other diseases is beneficial, instead of banning it, the main focus should be on providing safe post-abortion emergency care if needed.

Keywords: Post-abortion care, Health care, Mifepristone

INTRODUCTION

Mifepristone, previously known as RU-486, is a commonly used progesterone blocker that is used alongside misoprostol in the first 63 days of gestation to terminate the pregnancy without the requirement of surgery. ¹⁻³ It is a widely sought drug due to its non-invasive nature and its high efficacy in medical abortion. Although deemed one of the safer options as compared to other alternatives, mifepristone still poses a major risk to consumers as it can cause adverse effects such as abdominal pain, incomplete abortions, endometritis, and bleeding. ⁴

The name RU-486 was derived from a French pharmaceutical company, Roussel-Uclaf in the 1980s.⁵ Due to it commonly being known as the abortion pill, mifepristone has largely met with the controversy around the world. Although abortion is illegal in multiple countries, it will still occur under any circumstance. According to Guttmacher Institute, a research

organization based on advancing reproductive rights, in 2020, the number of medical abortions in the US increased to 54% due to the COVID pandemic.⁶ Furthermore, after the recent decision to overturn Roe. Wade, a legal case that safeguards the free will to have an abortion in the US, the consumption of the drug will continue due to it being an easy and efficient method that also promises privacy. Along with this, there will be a rise in online orders and mailing via telehealth, from the overseas market that does not impose the abortion ban.

The choice of method of abortion matters deeply to women as it is a sensitive procedure emotionally and physically. In a 2005 study conducted in Germany out of a sample size of 72 women, 52.0% of the women chose the surgical method because it is well-known and widely used. The other 50% wished to be unaware of the procedure as well as to avoid a more active involvement. Furthermore, for 46.0% it was an important factor that surgical abortion is less time-consuming and more convenient while 34% percent feared severe bleeding and

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pain if undergoing medical abortion. This sample size was compared to a sample size of 147 women who chose medical abortion.⁷

MIFEPRISTONE

Use and mode of action of mifepristone

Being a progesterone blocker, Mifepristone works at the level of receptors in which it has a high affinity for progesterone receptors.6 Therefore, when the dosage of Mifepristone is low, it binds to the receptors within the cells, inhibiting progesterone from binding with the receptor.⁶ At higher dosage, it prevents cortisol from binding with the glucocorticoid receptor.⁶ Cortisol is important in mediating the stress response, controlling metabolism, the inflammatory response, and immune function.8 An excess of cortisol, however, can cause a multitude of diseases, such as Cushing's syndrome; for which mifepristone has been FDA-approved for treatment.9 Mifepristone selectively neurocognitive function and may act as an antidepressant in bipolar disorder. It improves the spatial memory working function, verbal fluency and spatial recognition memory in people diagnosed with bipolar disorder. 10

Additionally, mifepristone is now being tested in clinical trials related to breast cancer, prostate cancer, alcoholism, Central serous chorioretinopathy, and several other conditions.¹¹

Potential side effects

A study conducted in 2021 by Su et al aimed to determine the effect of mifepristone post-implantation by treating cultured embryos of mice with Mifepristone. ¹²As a result, the research found that mifepristone directly affects the viability of the embryo and obstructs development post-implantation. If a patient were to keep a pregnancy after a failed treatment of mifepristone, this outcome showed a possibility of impairment in development and fetal fatality. Moreover, in the same 2005 study, women using medical abortion, bled longer, (mean duration 15.2 days compared to 10.9 days for surgical abortion) and also described the heaviness of their bleeding significantly higher on a Likert scale from 0 to 10 (6.8 compared to 3.9). The difference for perceived pain was also significant (4.4 versus 2.3).

Furthermore, a study in 2020 showed that when Mifepristone is ingested alone, it shows a higher risk of severe hemorrhages in patients early in their pregnancy. Out of the 12 participants enrolled, 2 participants voluntarily halted their enrollment after experiencing symptoms such as nausea, vomiting, and bleeding three days after ingestion of Mifepristone while severe hemorrhages occurred in 3 of the patients which required immediate treatment. Misguided patients, abuse of this drug, and medication ingested without supervision can

result in these outcomes which can be detrimental to the consumers.

MIFEPRISTONE AND RESTRICTIONS ON POSTABORTION CARE

The possible harmful effects of mifepristone, coupled with, the fear of receiving post-abortion care (PAC), is one of the horrific results of the abortion ban. The ongoing, controversial debate of access to health care for illegal abortion versus court investigations portrays a future threat of increased maternal mortality. According to a 2016 report, there was a striking increase in maternal mortality from 18.8 per 100,000 births in 2000 to 23.8 in 2014.¹⁴ One of the reasons for this was illegal abortion; subsequently leading to a lack of PAC services being provided by the healthcare facilities. This banning of the provision of medical care, questions the moral-ethical values of a doctor, submitting to the law. Mifepristone got banned in 8 states of the US right after the supreme court's conclusion. 15 This highlights the alarming effects of the decrease in its supply and prescription, which can hinder its beneficial usage in treatments of other illnesses. Hence, it is predicted that the health situation will be jeopardized by the enhanced mailing and use of mifepristone because of fear of being legally prosecuted.

CONCLUSION

On that account, the provision of emergency facilities for PAC should be alienated from the legal investigations and the patient should be lawfully dealt with after recovery. This is to prevent delay in treatment and inhibit doctors' medical advice due to legally reviewing patients' cases. There should be a track of records for each purchase of mifepristone made online through telehealth. The patients' data should be retrieved, traced where it's used, and medical assistance and guidance should be provided accordingly. Moreover, the rise in mifepristone use can be reduced by imposing trade barriers on online ordering of this pill through the international market and legally challenging the providers. Lack of accessibility will discourage its use and the adverse effects it can impose. However, this could give rise to the use of other unsafe methods of abortion which is even more deathly. Therefore, the prime focus should be to remove restrictions on emergency treatment for complications, due to the future rising threat of maternal mortality.

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