

# Modern complications after abortion

Karimov A.X.

DcS, professor of the Obstetrics and gynecology in family medicine department department of Tashkent medical academy, Uzbekistan

Xayitboyeva F.A.

Master of the Obstetrics and gynecology in family medicine department department of Tashkent medical academy, Uzbekistan

Davletova D.M.

PhD, assistant of the obstetrics and gynecology department of Tashkent medical academy, Uzbekistan

**Received:** 16 December 2024; **Accepted:** 18 January 2025; **Published:** 20 February 2025

**Abstract:** Around the world, abortion is a serious health problem in many countries. Every year, about 53 million pregnancies end with induced abortion.[1] Post-abortion complications may not be as dangerous to health, such as pain, stress, and infection, but can sometimes lead to such complex complications as atony and perforation of the uterus. For this reason, it is important for doctors to know the main complications after abortion and to carry out preventive measures to reduce abortions. In this article are given information of analysis of post-abortion complications which was conducted by authors. Post-abortion complications represent a spectrum of emergencies, from minor lacerations to life-threatening complications requiring immediate intervention. Unsafe abortions have a much higher complication rate. These include bleeding, uterine perforation, and endometritis. A supportive and unbiased history and physical examination are key to identifying complications of safe abortions, as well as problems that arise after unsafe abortions.

**Keywords:** Bleeding, complications, medical abortion, surgical abortion.

**Introduction:** Currently, many countries have no restrictions on abortion, but most of them have a limit on how far into pregnancy an abortion can be performed, typically between 6 and 24 weeks.

As of 2021, 24 countries have banned abortion entirely. The World Health Organization (WHO) classifies abortions as either "safe" or "unsafe." A "safe" abortion is performed in settings where abortion laws do not restrict access and is performed by trained health personnel [2]. An "unsafe" abortion is performed by someone who lacks the necessary skills, using unsafe materials and techniques, or in settings where minimal medical standards are not met. Because of the risk of complications and potential hazards associated with abortion, especially unsafe abortion, emergency physicians must be trained to recognize and manage these complications.

**Aim of the work was** to summarize the available

literature about complications after abortion.

## METHODS

We searched PubMed for articles using the keywords "abortion," "complications," and "post-abortion." The top 50 articles on the topic were reviewed. We also reviewed the national clinical protocols of the Republic of Uzbekistan and the Russian Federation.

## RESULTS

From 2020 to 2024, the global abortion rate was estimated at 35 per 1,000 women aged 15 to 44 years. There are documented disparities in abortion rates, with higher rates among women belonging to racial minorities, with low income and low education. This may be due to systemic challenges such as limited access to health care, racial discrimination, poorer living and working conditions, and higher levels of stress. [3]

Complication rates vary depending on the type of

procedure, gestational age, patient comorbidities, clinician experience, and, most importantly, whether the abortion was performed safely or unsafely. Most complications associated with abortion are minor, but serious complications such as heavy bleeding, endometritis, and disseminated intravascular coagulation (DIC) can occur. One study evaluating 54,911 abortions found an overall complication rate of 2.1%. Medical abortions had a complication rate of 5.2% (4.9% minor, 0.3% major), with complication rates of 1.3% in the first trimester and 1.5% in the second trimester. Vacuum aspiration abortions in early pregnancy had a complication rate of 2.3% (1.1% minor, 0.2% major).[4]

The overall mortality rate for safe abortions is less than 0.2%, but the mortality rate for unsafe abortions is significantly higher. Each year, approximately 68,000 women die from complications related to unsafe abortions. Countries with less training and access to abortion providers have higher maternal mortality rates. The annual maternal mortality rate related to unsafe abortion ranges from 4.7% to 13.2%. [5] Unsafe abortion-related deaths are most often due to septic abortion and hemorrhage.

Vaginal bleeding is common after an abortion and is usually comparable to or heavier than a normal menstrual period. Patients who have had a medical abortion typically lose more blood than those who have had a surgical abortion and may experience symptoms similar to those of spontaneous abortion. One study reported that blood loss ranged from 84 to 101 milliliters (mL) in patients who had a safe medical abortion and was 53 mL in those who had a vacuum aspiration abortion.[7] Bleeding typically gradually decreases over about 2 weeks after a medical abortion, but may persist for up to 45 days in some cases.[8, 14]

Uterine perforation is a possible complication of any intrauterine procedure and is the most common site of upper genital tract injury. Bowel, bladder, and surrounding vascular injury may accompany uterine perforation. A case series of 92 uterine perforations reported bowel or bladder injury in six cases. Overall, uterine perforation is rare, with an incidence of 0.1% to 2.3% in safe medical abortions. The incidence of uterine perforation is higher in unsafe abortions due to the instruments used and the inexperience of the person performing the procedure. Factors associated with an increased risk of uterine perforation include surgeon inexperience and inadequate preoperative cervical dilation. Other factors include those that make access to the endometrium difficult (eg, cervical stenosis, anteversion/retroversion of the uterus) and those that alter the integrity and strength of the myometrium (eg, previous cesarean section, uterine scarring),

particularly in women undergoing second-trimester medical abortion.[9]

Septic abortion is defined as any uterine infection complicating spontaneous or induced abortion. It is a potential complication of both medical and surgical abortions and may be caused by retained products of conception or the procedure itself (e.g., trauma, unsterile technique). Septic abortion occurs in less than 0.4% of patients undergoing first-trimester vacuum aspiration and safe abortions, but the rate is significantly higher in unsafe abortions. Minor infections occur in 24% of patients undergoing unsafe abortions, while severe infections occur in 5.1% [10]. The most common organisms include members of the Enterobacteriaceae family, streptococci, staphylococci, and enterococci, which are normal endogenous flora of the vagina and gastrointestinal tract. Other pathogens may include *Chlamydia trachomatis*, *Neisseria gonorrhoeae*, and *Trichomonas vaginalis*, which may be associated with preexisting infections.

Toxicity from misoprostol, a prostaglandin E analogue, is rare in safe abortions but more likely in unsafe abortions. Toxic doses of 3 to 8 milligrams (mg) may cause severe fever, chills, abdominal pain and cramping, vomiting and diarrhea, agitation, altered mental status, hypotension, hypoxemia, and rhabdomyolysis. [11,12, 13] These signs and symptoms usually develop rapidly after the first dose because misoprostol is completely absorbed from the stomach within 1.5 hours. Treatment involves removal of remaining tablets from the stomach (eg, gastric lavage) or vagina and supportive care, including intravenous fluids and antiemetics. In some cases, vasopressors may be required for patients who do not respond to intravenous fluids. Symptoms usually resolve within 12 hours, but doses greater than 12 mg can lead to multiple organ failure and death.

## CONCLUSION

Complications following abortion represent a spectrum of emergencies, from minor lacerations to life-threatening complications requiring immediate intervention. Unsafe abortions have a much higher complication rate. These include bleeding, uterine perforation, and endometritis. A supportive and unbiased history and physical examination are essential to identify complications of safe abortions, as well as problems that arise after unsafe abortions. Rapid recognition of the specific emergency, immediate stabilization, and possible specialist consultation can significantly reduce morbidity and mortality.

## REFERENCES

Национальный клинический протокол о порядке проведения искусственного прерывания

беременности. 2021 [стр 14]

Д.Ш. Янбаев, Л.В. Муллағалиева  
МЕДИКАМЕНТОЗНЫЙ АБОРТ – ЭФФЕКТИВНЫЙ ПУТЬ  
СОХРАНЕНИЯ РЕПРОДУКТИВНОГО ЗДОРОВЬЯ [ 2009  
стр 49]

Adler AJ, Filippi V, Thomas SL, Ronsmans C. Quantifying the global burden of morbidity due to unsafe abortion: Magnitude in hospital-based studies and methodological issues. *International Journal of Gynecology and Obstetrics*. 118 doi: 10.1016/S0020-7292(12)60003-4. [DOI] [PubMed] [Google Scholar]; *Int J Gynaecol Obstet*. 2012 doi: 10.1016/S0020-7292(12)60003-4. [DOI] [Google Scholar][Ref list]

4.World Population Review. Countries Where Abortion Is Illegal 2022. World Population Review. [Accessed June 27, 2022].

Dehlendorf C, Harris LH, Weitz TA. Disparities in abortion rates: a public health approach. *Am J Public Health*. 2013;103(10):1772–1779. doi: 10.2105/AJPH.2013.301339. [DOI] [PMC free article] [PubMed] [Google Scholar][Ref list]

Upadhyay UD, Johns NE, Barron R, et al. Abortion-related emergency department visits in the United States: An analysis of a national emergency department sample. *BMC Med*. 2018;16(1) doi: 10.1186/s12916-018-1072-0. [DOI] [PMC free article] [PubMed] [Google Scholar][Ref list]

Ganatra B, Gerdtz C, Rossier C, et al. Global, regional, and subregional classification of abortions by safety, 2010–14: estimates from a Bayesian hierarchical model. *Lancet*. 2017;390(10110):2372–2381. doi: 10.1016/S0140-6736(17)31794-4/ATTACHMENT/D5100FC1-A915-4107-87DC-9DE7C3ADBFB3/MMC1.PDF. [DOI] [PMC free article] [PubMed] [Google Scholar][Ref list]

Chan YF, Ho PC, Ma HK. Blood loss in termination of early pregnancy by vacuum aspiration and by combination of mifepristone and gemeprost. *Contraception*. 1993;47(1):85–95. doi: 10.1016/0010-7824(93)90111-J. [DOI] [PubMed] [Google Scholar][Ref list]

Chen L, Lai S, Lee W, Leon N. Uterine perforation during elective first trimester abortions: a 13-year review. [Accessed June 27, 2022]; *Singapore Med J*. 1995 36(1):63–67. <https://pubmed.ncbi.nlm.nih.gov/7570139/> [PubMed] [Google Scholar][Ref list]

Rahangdale L. Infectious complications of pregnancy termination. *Clin Obstet Gynecol*. 2009;52(2):198–204. doi: 10.1097/GRF.0b013e3181a2b6dd. [DOI] [PubMed] [Google Scholar][Ref list]

Austin J, Ford MD, Rouse A, Hanna E. Acute intravaginal

misoprostol toxicity with fetal demise. *J Emerg Med*. 1997;15(1):61–64. doi: 10.1016/S0736-4679(96)00257-0. [DOI] [PubMed] [Google Scholar][Ref list]

Randall Bond G, Van Zee A. Overdosage of misoprostol in pregnancy. *Am J Obstet Gynecol*. 1994;171(2):561–562. doi: 10.1016/0002-9378(94)90302-6. [DOI] [PubMed] [Google Scholar][Ref list]

Najmutdinova DK, Daniyarov AA, Ataxodjaeva FA, Gadoyeva DA. Improving outpatient medical abortion for women during the covid-19 pandemic. *Central Asian Journal of Medical and Natural Science* 5 (1), 454-459

Daniyarov AA, Gadoeva DA, Sagdullaeva UA, Sidikxodjaeva MA. Optimization of the medical abortion through questionnaires and the use of a low-sensitivity pregnancy test during the covid-19 pandemic. *World Bulletin of Public Health* 30, 86-92