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MIFEPRISTONE INDUCED DELIVERY: COMPLICATIONS AND PERSPECTIVES

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Relevance. In a study conducted by Rubby Das et al. (2022) was observed that mifepristone turned out to be effective when given 24 hours prior to labor with decreased requirement for prostaglandins and no increase in side effects both for fetus and mother. It's generally administered in post-term pregnancies to artificially induce cervical ripening and effacement leading to consequent induction of labour. Frydman et al. reported that 3 % women went into labour within 24 hr of ingestion of mifepristone. Hapangama and Neilson reported that mifepristone-treated women were more likely to be in labour or to have a favourable cervix at 48 h (risk ratio 2.41, 95 % confidence interval 1.70–3.42).

Aim: Analyse efficacy and safety of mifepristone-induced delivery in women with term and post-term pregnancy

Materials and methods. Clinical data of 201 women treated at Minsk City Clinical Hospital No.1 (Belarus) was analysed. The normal data is represented in number and percentages. The normality of continuous data was analysed by the Shapiro-Wilk test. The chi-square test was used to check the relationship between nominal variables. The level of significance was kept at $p<0.05$.

Results and their discussion. The patients were divided in 2 groups. Group 1 – successful induction that ended with vaginal labour consisted of 139 women with mean age 28.28±5.27 years, pregnancy parity 1.74±1.15, labour parity 1.46±0.84. Group 2 – failed induction where labor was finalized via Cesarean section – consisted of 62 women with mean age 28.61±4.57 years, pregnancy parity 1.37±0.60, labour parity 1.08±0.27; both being significantly higher in group 1 ($p<0,05$). Main indications for labour induction in both groups were: post-term pregnancy (63.3% vs 64.5%), hypertensive disorders of pregnancy (pre-eclampsia, chronic or gestational arterial hypertension) – 33.8% vs 35.5% in groups 1 and 2, respectively. In Group 2 (failed induction of labour), the indications for C-section mainly included: marked fetal distress (61.3%), ineffective induction (27.4%), cephalopelvic disproportion (8.1%) and asynclitism (3.2%). Also, we analysed in details what medications were used for labor induction and stimulation of contractions. Therefore, in group 1 – 1 pill of mifepristone was sufficient to induce cervical ripening and effacement in 73 (52.5%) patients, while 2 pills were used in 66 (47.5%) cases. In comparison, in group 2 – 22 (35.5%) patients were given 1 pill and 40 (64.5%) patients were given 2 pills. Both groups were also given additional uterotonics to induce labour: prostaglandin gel (32.4% vs 38.7%) prostaglandin IV during labour (22.9% vs 24.2%), oxytocin in 1^{st} & 2^{nd} period of labour (12.9% vs 4.8%; 4.3% vs 1.6%), amniotomy was performed in 25.9% and 24.2% cases, and epidural analgesia (10.8% vs 88.7%) respectively in groups 1 and 2. Following complications during labour induction and labour itself were noted: PROM (21.6% and 24.2%), primary arrest of labour (8.6% and 22.6%), secondary arrest of labour (5.8% vs 8.1%) and foetal distress in labour (2.2% vs 3.2%), in groups 1 and 2, respectively. Pathological blood loss (400 ml and more) was found in 78 patients in Group 1, which comprised 56,1%.

Conclusion. Success rate of induction of labour in the studied cohort was 69.15%, mitigating the need for C-section. Overall rate of complications was considerably low, highlighting the benefits of mifepristone administration. Still, induced labour should be managed as high-risk labour in terms of potential arrest of labour and fetal distress – therefore, such cases must be monitored closely.