

Efficacy and Safety of Oral versus Vaginal Misoprostol for First Trimester Missed Miscarriage

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BACKGROUND

Miscarriage affects 10-20% of clinically recognized pregnancies, creating a significant need for effective management options. Misoprostol, a synthetic prostaglandin E1 analog, offers a non-invasive alternative to surgical evacuation by inducing uterine contractions that facilitate expulsion of retained products of conception. This medical management approach reduces surgical intervention needs, decreases healthcare costs, and provides patients with greater autonomy in their reproductive healthcare.

Objective

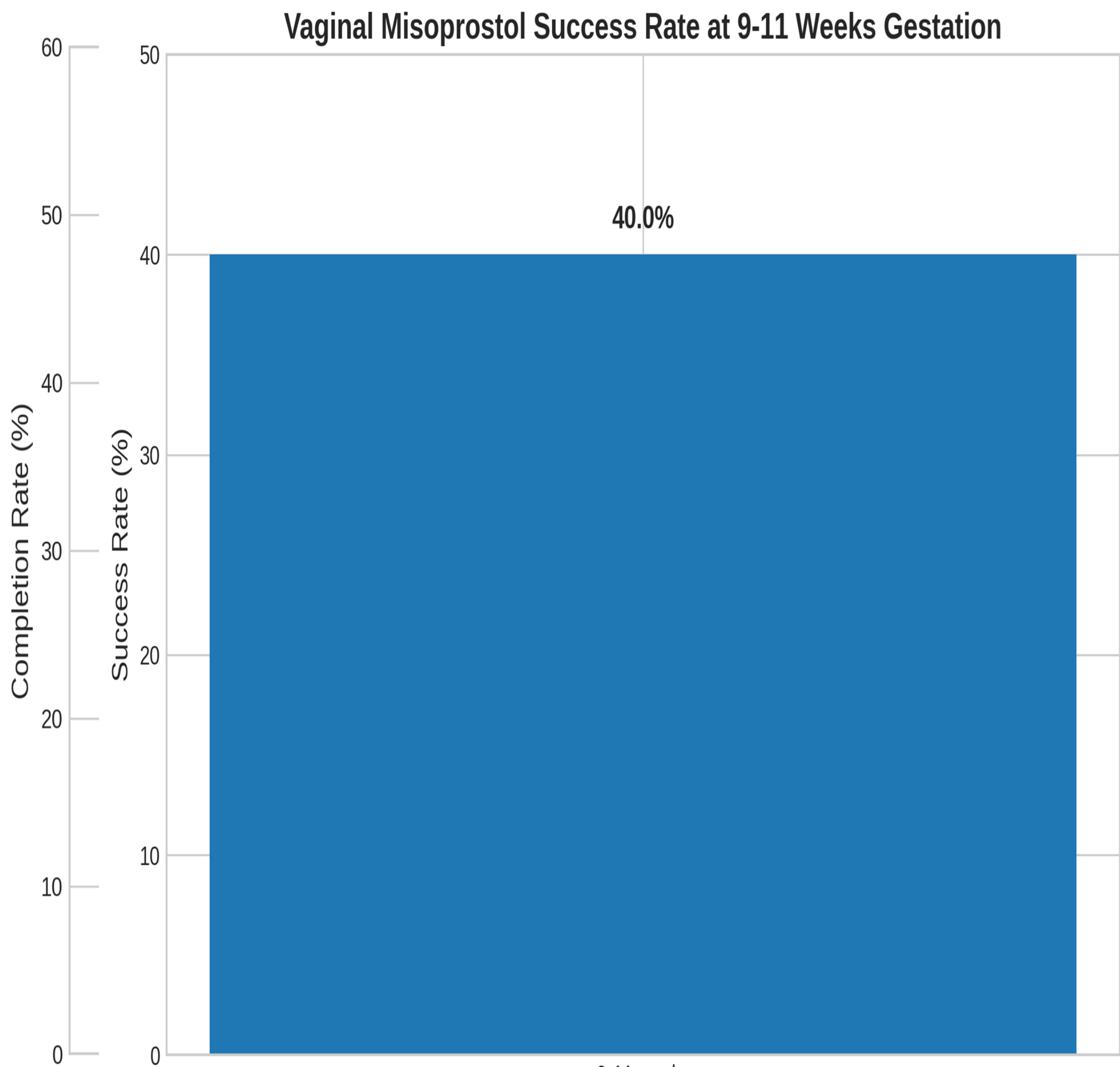
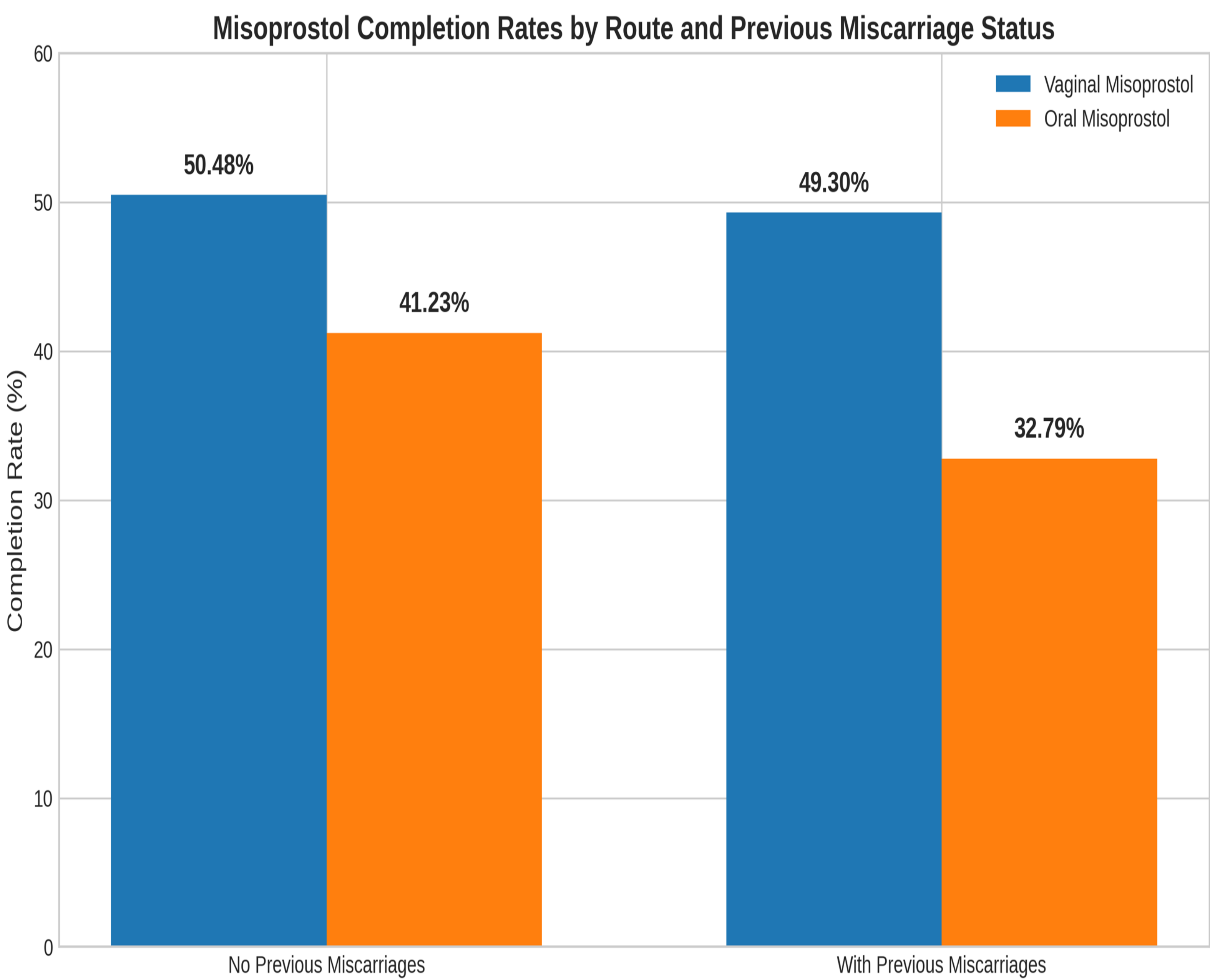
To evaluate the efficacy and safety of oral versus vaginal misoprostol for the management of first trimester missed miscarriage.

METHODS

The study included 354 women diagnosed with first trimester missed miscarriage. Patients were divided equally into oral (n=177) and vaginal (n=177) misoprostol groups. Data on demographics, gestational age, previous miscarriages, side effects, and treatment outcomes were collected from medical records. Statistical analysis using SPSS v25 compared success rates, completion rates, and side effects between the groups.

RESULTS

Vaginal misoprostol demonstrated higher completion rates compared to oral misoprostol in women without previous miscarriages (50.48% vs. 41.23%) and in women with prior miscarriages (49.30% vs. 32.79%). Oral misoprostol showed consistent success rates across gestational ages, while vaginal misoprostol exhibited variable outcomes, including higher success at earlier gestational ages (40% at 9 to 11 weeks). Side effects, including shivering and fever, were slightly more frequent with vaginal misoprostol.



CONCLUSION :

Vaginal misoprostol achieves higher completion rates regardless of previous miscarriage history, while oral misoprostol demonstrates consistent efficacy across gestational ages. These findings highlight the importance of gestational age and patient history in determining the optimal route of administration. Prospective studies are needed to confirm these results and further guide individualized treatment protocols.