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PREKIDI TRUDNOĆE KOD PRIMIGRAVIDA U DRUGOM TRIMESTRU METODOM DUPLE APLIKACIJE DINOPROSTON GELA I INTRAMUSKULARNE APLIKACIJE KARBOPROST TROMETAMINA

SECOND TRIMESTER PREGNANCY TERMINATION IN PRIMIGRAVIDAS BY DOUBLE APPLICATION OF DINOPROSTONE GEL AND INTRAMUSCULAR ADMINISTRATION OF CARBOPROST TROMETHAMINE

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Sažetak - Urađena je randomizirana studija legalnih prekida trudnoće u drugom trimestru kod primigravida primenom endocervikalne aplikacije dinoprostona gela (*Prepidil gel*) u kombinaciji sa intramuskularnom aplikacijom karboprost trometamina (*Prostin 15 M*). Studija je obuhvatala 97 ispitanica. Kontrolna grupa (N=35) - grlić materice farmakološki je pripreman jednokratnom endocervikalnom aplikacijom 0,5mg Dinoprostona gela, deset sati nakon aplikacije intramuskularno je dat Prostin 15 M (1ml/2h) do pobačaja. Ispitivana grupa A (N=31) - grlić materice farmakološki je pripreman endocervikalnom aplikacijom 0,5mg dinoprostona gela, dva puta u razmaku od četiri sata, šest sati nakon druge aplikacije gela, dat je intramuskularno Prostin 15 M (1ml/2h) do pobačaja. Ispitivana grupa B (N=31) - grlić materice farmakološki je pripreman duplom jednokratnom endocervikalnom aplikacijom 0,5mg dinoprostona gela, a deset sati nakon duple aplikacije gela, dat je intramuskularno Prostin 15 M (1ml/2h) do pobačaja. Na osnovu dobijenih rezultata zaključeno je da NOVA kombinacija endocervikalne i intramuskularne aplikacije prostaglandina ima statistički značajno skraćen abortusni interval (Kontrolna grupa $\bar{x}=9,97$; SD=5,22; Ispitivana grupa A- $\bar{x}=6,80$; SD=4,31; Ispitivana grupa B- $\bar{x}=5,55$; SD=3,48) Zbog bolje farmakološke pripreme grlića materice, skraćen je abortusni interval i smanjena količina sistemski primenjenih prostaglandina. Skraćen abortusni interval značajno utiče na smanjenje neposrednih, ranih i poznih komplikacija. Smanjenjem količine sistemski aplikovanih prostaglandina bitno su smanjeni neželjeni efekti koje izazivaju prostaglandini i značajno je pojeftinjena metoda prekida trudnoće.

Ključne reči: Legalni abortus; Graviditet; Drugi trimestar trudnoće; Dinoprost; Carboprost; Trometamin

Summary - A randomized study of legal pregnancy termination in the second trimester has been performed in primigravidas by endocervical application of Prepidil gel (dinoprostone gel) in combination with intramuscular application of Prostin 15 M (carboprost tromethamine). The study comprised 97 patients. The control group (N=35) included patients in whom pharmacologic preparation of the cervix was performed by a singleton endocervical application of 0,5 mg dinoprostone gel and intramuscular administration of Prostin 15 M (Carboprost Tromethamine) (1ml/2 h) 10 h later and until abortion. The investigated group A (N=31) underwent pharmacologic preparation of the cervix by endocervical application of 0,5 dinoprostone gel, 2 times during an interval of 4 hours. Intramuscular injection of Prostin 15 M (Carboprost Tromethamine) (1 ml/h) was administered 6 hours after the second application of gel and until abortion. The investigated group B (N =31) underwent pharmacologic preparation of the cervix by a singleton dose endocervical application of 0,5 mg dinoprostone gel and intramuscular treatment by 1 ml/2h of Prostin 15 M (Carboprost Tromethamine) applied 10 hours later and until abortion. On the basis of obtained results, a conclusion was made that the NEW combination of endocervical and intramuscular application of prostaglandins gives statistically significantly shortened abortion interval (the control group $\bar{x} = 9,97$; SD=5.22 versus investigation group: A- $\bar{x}= 6,80$; SD = 4,31 and investigation group: B- $\bar{x}=5,55$; SD = 3,48). Better pharmacologic preparation of the uterine cervix resulted in shorter abortion interval and decreased amount of systemically applied prostaglandins. A shortened abortion interval significantly decreases the rate of immediate, early and late complications. A decreased amount of systemically applied prostaglandins results in significantly lower rate of unwanted side-effects caused by prostaglandins, making this method of pregnancy termination significantly cheaper.

Key words: Abortion, Legal; Gravity; Pregnancy Trimester, Second; Dinoprost; Carboprost; Tromethamine

Uvod

Legalni prekidi trudnoće su "nužno" zlo u planiranju porodice, ali su istovremeno i strateški značajan instrument planiranja porodice, pa samim tim i vođenja progresivne populacione politike [1].

Problem legalnih prekida trudnoće je kompleksan.

Introduction

Legal pregnancy terminations are the "inevitable evil" in family planning, but also a strategically significant instrument of family planning and consequently an instrument of a progressive population policy [1].

The problem of legal pregnancy termination has always been complex.

Stalan zadatak službe za zdravstvenu zaštitu žena i dece, s obzirom na težinu komplikacija koje mogu nastati u toku, odnosno nakon legalnih prekida trudnoće, treba da bude permanentno praćenje, usavršavanje i korišćenje savremenih tehnika legalnog prekida trudnoće, kako bi se eventualne komplikacije ako ne sasvim eliminisale, a ono makar minimizirale [1].

Adekvatno primenjena metoda legalnih prekida trudnoće izuzetno je važna u očuvanju fertilne funkcije žene.

Dilatacija grlića materice kod prekida trudnoće je najriscantniji segment kompletno riskantne intervencije [2,3].

Cilj rada je bio da se ispita efikasnost određene kombinacije prostaglandinskog gela na farmakološko sazrevanje grlića materice.

Radna hipoteza je pretpostavljala da dupla doza (1mg) intracervikalne aplikacije prostaglandin gela izaziva bolje farmakološko sazrevanje grlića materice od jedne doze (0,5mg). Bolja farmakološka priprema grlića materice skraćuje abortusni interval, što bitno utiče na smanjenje komplikacija koje proističu iz ove intervencije.

Materijal i metode

Urađena je randomizirana studija legalnih prekida trudnoće u drugom trimestru kod primigravida primenom endocervikalne aplikacije dinoproston gela (*Prepidil gel*) u kombinaciji sa intramuskularnim davanjem karboprost trometamina (*Prostin 15 M - Upjohn*).

Ispitivanje je vršeno na Klinici za ginekologiju i akušerstvo Medicinskog fakulteta u Novom Sadu u periodu od 1995-1999. godine.

Sve pacijentkinje su ginekološki, sonografski i laboratorijski ispitane. Svaka ispitanica evidentirana je u listu protokola sačinjenog specijalno za ovo ispitivanje.

Kontrolna grupa - obuhvatala je 35 primigravida drugog trimestra trudnoće. Grlić materice farmakološki je pripreman jednokratnom endocervikalnom aplikacijom 0,5 mg dinoproston gela, deset sati nakon farmakološke pripreme grlića, dat je intramuskularno Prostin 15 M (1ml/2h) do pobačaja.

Ispitivana grupa A - 31 primigravida drugog trimestra trudnoće. Grlić materice farmakološki je pripreman endocervikalnom aplikacijom 0,5 mg dinoproston gela, dva puta u razmaku od četiri sata, šest sati nakon druge aplikacije gela, dat je intramuskularno Prostin 15 M (1ml/2h) do pobačaja.

Ispitivana grupa B- 31 primigravida drugog trimestra trudnoće. Grlić materice farmakološki je pripreman duplom jednokratnom endocervikalnom aplikacijom 0,5 mg dinoproston gela, deset sati nakon aplikacije gela, dat je intramuskularno Prostin 15 M (1ml/2h) do pobačaja.

Kod ispitanica svih grupa određivano je stanje grlića pre aplikacije i nakon aplikacije (dva puta kod

A permanent goal of services for women and children's health protection, concerning possible complications which might occur during, i. e. after legal pregnancy termination, should be permanent follow-up, improvement and application of up-to-date techniques of pregnancy termination in order to either completely eliminate, or at least minimize the associated complications [1].

Adequate methods of pregnancy termination are of utmost significance for preservation of women's fertile function.

During pregnancy termination, cervical dilatation is the riskiest segment of a generally risky intervention. [2,3].

The aim of this study was to investigate the efficacy of a certain combination of prostaglandin gel on pharmacologic cervical ripening.

Our hypothesis suggested that a double-dose (1 mg) of intracervically applied prostaglandin gel causes better pharmacologic ripening of the uterine cervix in contrast to a single dose (0,5 mg). Better pharmacologic preparation of the cervix shortens the abortion interval, significantly decreasing the complication rate following this intervention.

Material and methods

A randomized study included legal pregnancy terminations performed during the second trimester in primigravidas by endocervical application of Prepidil gel (dinoprostone-Upjohn gel) in combination with intramuscular administration of Prostin 15 M (carboprost tromethamine - Upjohn).

Investigations were done at the Department of Obstetrics and Gynaecology of the Faculty of Medicine in Novi Sad during the period from 1995 to 1999.

All patients underwent gynaecological, sonographic and laboratory examinations. Each patient was enlisted in the protocol created for this particular investigation.

The control group comprised 35 primigravidas in the second trimester of pregnancy. Pharmacologic preparation of the uterine cervix was done by a singleton endocervical application of 0,5 mg dinoprostone gel, followed by intramuscular administration of Prostin 15 M (Carboprost Tromethamine) (1 ml/2h) administered 10 hours later and until the completion of abortion.

The investigated group A comprised 31 primigravidas in the second trimester of pregnancy. Pharmacologic preparation of the cervix was done by endocervical application of 0,5 mg dinoprostone gel, 2 times at 4 hour interval. Six hours after the second gel application, Prostin 15 M (Carboprost Tromethamine) (1ml/2h) has been administered intramuscularly, until abortion.

ispitanica grupe A). Određivani su sledeći parametri stanja grlića: dužina, položaj, konzistencija i dilatacija. Prva tri parametra određivana su palpacijom. Dilatacija grlića materice određivana je Hegarovim dilatatorima: pre aplikacije gela (uključene su samo one ispitanice kod kojih je prolaznost cervikalnog kanala bila Hegar br. 1,2,3) ta vrednost je označena kao Hegar 0. Nakon aplikacije gela, dilatacija cervikalnog kanala označena je kao Hegar I i Hegar II. Razlika u prolaznosti cervikalnog kanala pre i posle aplikacije gela označena je kao delta Hegar (Δ Hegar). Delta Hegar kod kontrolne grupe određen je deset sati nakon endocervikalne aplikacije gela, kod ispitanica grupe A četiri sata nakon prve i šest sati nakon druge endocervikalne aplikacije gela, a kod ispitanica grupe B deset sati nakon duple aplikacije gela.

Dobijeni rezultati obrađeni su adekvatnim statističkim metodama.

Rezultati

Nakon primenjene metodologije rada i statističke obrade podataka, dobijeni su sledeći rezultati:

Kod farmakološke intracervikalne pripreme grlića materice s duplim dozama Dinoproston gela (1mg), a na osnovu dobijenih vrednosti t-testa i statističke značajnosti (p) za dužinu abortusnog intervala, količinu upotrebljenog Prostina 15 M, delta Hegar dilatacije unutrašnjeg materičnog ušća, vrednosti su statistički signifikantno niže ($p < 0,01$) kod ispitanica grupe A i B u odnosu na ispitanice kontrolne grupe.

Tabela 1. Karakteristike ispitanica

Table 1. Characteristics of investigated patients

Karakteristike ispitanica <i>Characteristics of patients</i>	Kontrolna grupa <i>Control group</i>	Ispitanice grupe A <i>Investigated group A</i>	Ispitanice grupe B <i>Investigated group B</i>
Broj ispitanica N <i>No of patients (N)</i>	35	31	31
Primigravide <i>Primigravidas</i>	Da/Yes	Da/Yes	Da/Yes
Prosečna ($\bar{x}$) dobna starost <i>Mean ($\bar{x}$) age</i>	18,9 (12-25)	21,2 (15-29)	19,8 (13-26)
Prosečna ($\bar{x}$) menarha <i>Mean ($\bar{x}$) age at menarche</i>	13,2 (10-17)	13,2 (10-16)	12,9 (9-18)
Prosečna ($\bar{x}$) dužina ciklusa <i>Mean ($\bar{x}$) cycle duration</i>	30	32	31
Prosečna ($\bar{x}$) dužina krvarenja/ <i>Mean ($\bar{x}$) duration of menstrual bleeding</i>	5	6	6
Prosečna ($\bar{x}$) starost trudnoće (G.N.)/ <i>Mean ($\bar{x}$) gestational age (G.W.)</i>	17,77	18,18	17,90
Zrelost grlića/ <i>Cervical ripeness</i>	0	0	0

The investigated group B comprised 31 primigravidas in the second trimester of pregnancy. Pharmacologic preparation of the cervix was done by singleton double-dose endocervical application of 0,5 dinoprostone gel. Ten hours following gel application, Prostin 15 M (Carboprost Tromethamine) (1ml/2h) was administered intramuscularly until the completion of abortion.

In all investigated patients, the condition of cervix was checked before and after the application (2 times in the group A). The following parameters were estimated: cervical length, position, consistency and dilatation. The first 3 parameters were estimated by palpation.

Cervical dilatation was estimated using Hegar's dilator: prior to gel application (only patients in whom Hegar 1, 2 and 3 could be inserted were included in this study); this value was marked as Hegar 0. After gel application: these values were denoted as Hegar I and Hegar II. The difference in dilatation of the cervical canal before and after gel application was identified as Delta Hegar (Δ Hegar). Delta Hegar in the control group was estimated 10 hours following endocervical gel application; in group A - 4 hours following the first and 6 hours following the second endocervical application of gel, whereas in group B - 10 hours following the double-dose application of gel.

The obtained results were analyzed using specific statistical procedures.

Results

Statistical processing of the obtained data gave the following results:

Pharmacologic intracervical preparation of the uterine cervix using double doses of dinoprostone gel (1 mg) applied in the investigated groups A and B, resulted in significantly lower ($p < 0,01$) values of t-test, statistical significance (p) for duration of abortion interval, amount of the applied Prostin 15M (Carboprost Tromethamine) and Delta Hegar dilatation of internal uterine os, in relation to the control groups.

The test has been performed in order to determine whether the method of double-dose application of dinoprostone gel (groups A and B) has statistical significance in regard to the duration of abortion interval, amount of the applied Prostin 15M (Carboprost Tromethamine) and Delta Hegar dilatation of internal uterine os. The obtained t-test values suggest that the statistical significance ($p < 0,01$) is present only concerning the values of Hegar dilatation of internal uterine os, singleton double-dose application of dinoprostone gel in the B group patients and the first double-dose of dinoprostone gel in A group patients. There was no statistically significant difference in duration of abortion interval and amount of the applied Prostin 15M (Carboprost Tromethamine) in the tested groups A and B.

Vršeno je testiranje da li način duple aplikacije dinoprostona gela (ispitanice grupe A i B) ima statističku značajnost u odnosu na dužinu abortusnog intervala, količinu upotrebljenog Prostin 15 M, delta Hegar dilataciju unutrašnjeg materičnog ušća. Na osnovu dobijenih vrednosti t-testa, statistička značajnost ($p < 0,01$) izražena je samo kod vrednosti delta Hegar dilatacije unutrašnjeg materičnog ušća duple jednokratne aplikacije dinoprostona gela ispitanica grupe B i prve aplikacije duple doze dinoprostona gela ispitanica grupe A. Ne postoji statistička značajnost razlika u dužini abortusnog intervala i količini upotrebljenog Prostin 15 M ispitanica grupe A i B.

U kontrolnoj grupi nije bilo pobačaja nakon aplikacije dinoprostona gela. U ispitivanoj grupi A bilo je 2 (6,45%) pobačaja nakon aplikacije gela, a kod ispitanica grupe B 4 (12,9%).

Kod ispitanica svih grupa praćene su vrednosti krvnog pritiska, pulsa, telesne temperature, merena je količina krvarenja, evidentirane su nuspojave (mučnina, povraćanje, proliv, osip). Nije izražena statistička značajnost merenih parametara ispitivanih grupa. Parametri stanja grlića: konzistentija, položaj i dužina grlića, evidentirani su kod svake aplikacije, ali zbog nemogućnosti objektivizacije, nisu statistički obrađivani.

Tabela 3. Vrednosti t-testa i statističke značajnosti (p) dobijenih vrednosti ispitivanih grupa

Table 3. T-test values and statistical significances (p) of the obtained results in investigated groups

Ispitivane grupe Investigated groups	Dužina abortusnog inter- vala Duration of abortion interval	Količina upotreblje- nog Prostin 15 M/ ml/The amount of used Prostin 15M/ ml (Carboprost Tromethamine)	ΔHegar dilatacije unutrašnjeg ma- teričnog ušća/Delta Hegar dilatation of internal uterine os
Grupa A prema kontrolnoj grupi	t=2,72	t=2,92	Aplikacija
Group A versus control group	p<0,01	p<0,01	I II t=0,086 t=5,56 p<0,05 p<0,01 t=5,6 p<0,01
Grupa B prema kontrolnoj grupi	t=4,08	t=4,15	
Group B versus control group	p<0,01	p<0,01	
Grupa B prema kontrolnoj grupi	t=1,26	t=1,16	Aplikacija
A/Group B versus group A	p>0,05	p>0,05	Application

Diskusija

Grlić materice predstavlja jednu od najkompleksnijih, nemineralizovanih struktura u čovečijem organizmu. Mehanizam njegove dilatacije u trudnoći i porođaju je veoma složen [4].

Najrizičniji segment prekida trudnoće je dilatacija grlića materice [2,3]. Neadekvatna dilatacija grlića

Tabela 2. Prosečne ($\bar{x}$) vrednosti dužine abortusnog intervala, količine upotrebljenog Prostin 15 M, gestacijske starosti trudnoće, vrednosti delta Hegar dilatacije unutrašnjeg materičnog ušća ispitanica kontrolne grupe, grupe A i B

Table 2. Mean ($\bar{x}$) values of abortion interval, amount of used Prostin 15 M (Carboprost Tromethamine), gestational age and Delta Hegar dilatation of internal uterine os in patients from control groups and investigated groups A and B

Merena vrednost Measured values	Kontrolna grupa N=35 Control group	Ispitanice grupe A=31/ Investigated group A=31	Ispitanice grupe B=31/ Investigated group B=31
Dužina abortusnog inter- vala (h) /Duration of abortion interval	$\bar{x}=9,97$ SD=5,22	$\bar{x}=6,80$ SD=4,31	$\bar{x}=5,55$ SD=3,48
Količina upotrebljenog Prostin 15 M /ml/The amount of used Prostin 15 M/ml (Carboprost Tromethamine)	$\bar{x}=4,88$ SD=2,55	$\bar{x}=3,25$ SD=2,01	$\bar{x}=2,70$ SD=1,65
Gestacijska starost trud- noće (G.N.)/ Gestational age	$\bar{x}=17,77$ SD=2,15	$\bar{x}=18,18$ SD=2,02	$\bar{x}=17,96$ SD=3,13
Delta Hegar (Δ) dilatacije unutrašnjeg ma- teričnog ušća/Delta He- gar (Δ) dilatation of internal uterine os	$\bar{x}=10,42$ SD=1,83	prva aplikacija first application $\bar{x}=10,46$ SD=1,95	druga aplikacija second application $\bar{x}=13,43$ SD=2,54

Abortion did not occur in the control group following the application of dinoprostone gel, whereas application of gel induced abortion in 2 (6.45%) group A patients and 4 (12.9%) group B patients.

All patients were followed up for blood pressure, body temperature, blood loss as well as for possible side-effects such as nausea, vomiting, diarrhea and rush. Because of impossibility to objectify the parameters such as consistency, position and length of uterine cervix, they were recorded, evidenced but not statistically processed.

Discussion

Uterine cervix presents one of the most complex, non-mineralized structures in the human body. The mechanism of its dilatation during pregnancy and delivery is extremely complicated [4].

The most risky segment in the procedure of pregnancy termination is dilatation of the uterine cervix [2,3]. Inadequate cervical dilatation during artificial pregnancy termination and possible accompanying injuries may result in later cervical insufficiency during future wanted pregnancies [5,6,7].

materice kod namernog prekida trudnoće i povrede koje tom prilikom mogu nastati dovode do insuficijencije grlića kod željenih trudnoća [5,6,7].

Postojali su različiti pokušaji dilatacije cervikalnog kanala [8]. Rizik nastanka komplikacija raste sa trajanjem trudnoće, te je izbegavanje instrumentalnog prekida trudnoće sasvim opravdano i poželjno [9].

Značajan doprinos rešavanju iznetih problema dilatacije grlića materice donela je primena prostaglandinskih preparata [10-16]. Primenom prostaglandinskih preparata aktiviraju se celularni mehanizmi vezani za enzimske sisteme c-AMP - delujući kako na mišićne ćelije miometrijuma tako i na fibroblaste grlića, aktivirajući litičke enzime za razgradnju kolagena, dovodeći do slabljenja veza kolagenih vlakana, što ima za posledicu razmekšanje grlića materice [17-21].

Poznate su različite kombinacije lokalne i intramuskularne aplikacije prostaglandinskih preparata [5,11,19,20]. Međutim, opisana kombinacija, predstavlja originalan doprinos u pokušaju rešavanja ove problematike

Na osnovu dobijenih rezultata, primenjenom kombinacijom prostaglandinskih preparata, statistički je značajno skraćen ($p < 0,01$) abortusni interval, smanjena količina sistemski primenjenih prostaglandina, jer je poboljšana farmakološka priprema grlića materice u odnosu na ranije primenjene metode [1-21]. Skraćenje abortusnog intervala ima statistički značajan uticaj na smanjenje neposrednih, ranih i kasnih komplikacija, uključujući i značajno smanjenje psihičkih trauma pacijentkinja. Smanjenje upotrebljenih sistemskih doza prostaglandina značajno smanjuje nuspojave koje ovi lekovi izazivaju. Novom kombinacijom prostaglandinskih preparata značajno je pojeftinjena metoda prekida trudnoće. Na osnovu dobijenih rezultata ispitivanih grupa A i B, vidi se da ne postoji statistički značajna razlika u dužini abortusnog intervala, količini upotrebljenih intramuskularno datih prostaglandinskih preparata. Preporučujem duplu jednokratnu endocervikalnu aplikaciju dinoprostona gela isključivo iz praktičnih razloga.

Ispitivana metoda je metoda izbora legalnih prekida trudnoće u drugom trimestru.

Zaključak

U odnosu na ranije primenjene metode legalnog prekida trudnoće, ispitivana metoda ima statistički značajno skraćen abortusni interval.

Skraćen abortusni interval značajno utiče na smanjenje neposrednih, ranih i poznih komplikacija prekida trudnoće.

Značajno smanjenje upotrebljenih sistemskih doza prostaglandina smanjuje neželjene sistemske efekte i bitno pojeftinjuje metodu.

There have been various attempts for cervical canal dilatation [8]. The risk of complications increases with the duration of pregnancy, therefore avoidance of instrumental pregnancy termination has proved to be fully justified and required [9].

Application of prostaglandins gave a significant contribution to solving the previously mentioned problem of cervical dilatation. [10-16]. Prostaglandins activate cellular mechanisms connected with enzymatic systems of c-AMP, affecting both muscle cells of the myometrium and cervical fibroblast, activating lytic enzymes for collagen dissolution leading to weakening of the bonds of collagen fibres and the resulting softening of the uterine cervix [17,18,19,20,21].

Various efforts have been made to produce the right combination of local and intramuscular administration of prostaglandins [5,11,19,20]. Nevertheless, the presented combination of applied doses and timing is an original contribution to efforts for solving this problem.

The obtained results of this investigation suggest that the aforementioned combination of prostaglandins results in a statistically significant ($p < 0,01$) shortening of abortion interval and decreased amount of systemically applied prostaglandins, improved pharmacologic preparation of the uterine cervix, in relation to previous due to methods of pregnancy termination [1-21]. Shortening of abortion interval significantly decreases the rate of immediate, early and late complications as well as psychological trauma of patients. Decreased systemic doses of prostaglandins significantly decrease the rate of side effects caused by these drugs. This new combination of prostaglandins significantly reduces the cost of the procedure of pregnancy termination. The obtained results of investigation in patients from groups A and B suggest that there is no statistically significant difference in the duration of abortion interval and the amount of prostaglandins administered intramuscularly. In my opinion, a singleton double-dose endocervical application of dinoprostone gel should be recommended for practical reasons.

Results of this investigation suggest that this method is a method in choice of legal pregnancy termination in the second trimester.

Conclusion

The investigated method of legal pregnancy termination resulted in significantly shortened abortion interval in relation to other methods.

A shortened abortion interval significantly decreases the rate of immediate, early and late complications of pregnancy termination.

A significantly decreased amount of used prostaglandins decreases the rate of undesirable systemic effects resulting in reduced costs of the procedure.

Ne postoji statistički značajna razlika u dobijenim rezultatima ispitanica grupe A i B. Iz praktičnih razloga predlažem duplu jednokratnu dozu lokalne aplikacije gela.

NOVA, kombinacija endocervikalne i intramuskularne aplikacije prostaglandina, metoda je izbora legalnih prekida trudnoće u drugom trimestru.

There is no statistically significant difference in the obtained results between the investigated groups A and B. For practical reasons, I recommend a singleton double-dose local application of gel.

On the basis of presented results it can be concluded that this NEW combination of endocervical and intramuscular administration of prostaglandins is a method of choice for legal pregnancy termination in the second trimester.

Literatura

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