GURANDA OKROPIRIDZE, ARSEN GVENETADZE, REVAZ SULUKHIA,
RUSUDAN GVENETADZE, DIANA CHANUKVADZE

IMPACT OF THE FIRST PREECLAMPSIA SCREENING TEST ON THE OUTCOME OF PREGNANCY

Tbilisi state university, Zurab Sabakhtarashvili Reproductive Clinic, Gudushauri National Medical Center

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გურანდა ოქროპირიძე, არსენ გვენეტაძე, რევაზ სულუხია,
რუსუდან გვენეტაძე, დიანა ჭანუკვაძე

პირველი პრეეკლამფსიის სკრინინგული ტესტის გავლენა ორსულობის შედეგზე

თბილისის სახელმწიფო უნივერსიტეტი, ზურაბ საბახტარაშვილის რეპროდუქციული კლინიკა, ღუდუშაურის სახელობის ეროვნული სამედიცინო ცენტრი

რეზიუმე

შესავალი. ჰიპერტენზიული დარღვევები მსოფლიოში დედისა და პერინატალური ავადობისა და სიკვდილიანობის ერთ-ერთი წამყვანი მიზეზია. პრეეკლამპსიით ერთი ორსული ქალი იღუპება 7 წუთში ერთხელ (სულ 70 000) და ერთი ნაყოფი (სულ 525 000) ერთ წუთში ერთხელ (ჯანდაცვის მსოფლიო ორგანიზაცია, 2019).

მიზანი. პირველი ტრიმესტრის პრეეკლამპსიის სკრინინგული ტესტის ეფექტურობის შეფასება.

მეთოდები. 2021-2025 წლებში (აგვისტო) ზურაბ საბახტარაშვილის რეპროდუქციულ კლინიკაში ჩატარდა პროსპექტულ-ობსერვაციული კვლევა 143 ორსულ ქალზე, რომლებსაც ჰქონდათ პრეეკლამპსიის დადასტურებული მაღალი რისკი (ჯგუფი 1). ყველა მონაწილეს ჩაუტარდა პრეეკლამფსიის სკრინინგული ტესტი პირველ ტრიმესტრში, ორსულობის 11-14 კვირაზე, რაც მოიცავდა საშვილოსნოს არტერიის ორმხრივ დოპლეროგრაფიას, საშუალო არტერიულ წნევას და ბიოქიმიურ მარკერებს (პლაცენტას ზრდის ფაქტორი). მაღალი რისკის მქონე ორსულებს მთელი ორსულობის განმავლობაში უტარდებოდათ აცეტილსალიცილის მჟავას 150 მგ მკურნალობა. გარდა ამისა, 2023-2024 წლებში ღუდუშაურის სახელობის ეროვნულ სამედიცინო ცენტრში შესწავლილი იქნა 106 ორსული ქალი, რომლებსაც განუვითარდათ პრეეკლამფსია (II ჯგუფი). ლოგისტიკური რეგრესია იქნა გამოყენებული დამაბნეველი ფაქტორების გამოსარიცხად.

შედეგები: 2021 წლის 1 იანვრიდან 2025 წლის 31 ივლისამდე პერიოდში ზურაბ საბახტარაშვილის რეპროდუქციულ კლინიკაში ჩატარდა 950 პრეეკლამპსიის სკრინინგული ტესტი. 503 შემთხვევაში დადასტურდა მაღალი რისკი (53.4%). პროსპექტიულ-ობსერვაციული კვლევისთვის შეირჩა 143 ორსული ქალი პრეეკლამპსიის მაღალი რისკით (I ჯგუფი). მათგან 90.2%-ს (129 ორსული) არ განუვითარდა პრეეკლამფსია, 9.8%-ს (14 ორსული) განუვითარდა პრეეკლამპსია. კვლევა აჩვენებს, რომ ამ 143 პაციენტში დედის ან ნაყოფის ჯანმრთელობასთან დაკავშირებული პრობლემები არ დაფიქსირებულა (დედის სიკვდილიანობა - 0, ნაყოფის სიკვდილიანობა - 0, ჰისტერექტომია - 0, დედის ინტენსიური თერაპიის განყოფილებაში განთავსება - 0). ცალკე შესწავლილი იქნა 106 ორსული ქალის მეორე ჯგუფი, რომლებსაც განუვითარდათ პრეეკლამპსია. ამ ჯგუფში არცერთს არ ჩაუტარებია სკრინინგ ტესტი. ამ ჯგუფში აღინიშნა შემდეგი გართულებები: ნაყოფის სიკვდილი - 13 (12.3%), ჰისტერექტომია - 5 (4.7%), დედის ინტენსიური თერაპიის განყოფილებაში განთავსება - 5 (4.7%). დედისა და ნაყოფის არასასურველი შედეგების სხვაობა სკრინინგირებულ და არასკრინინგულ ჯგუფებს შორის მნიშვნელოვანი იყო ($p < 0.05$).

დასკვნა: ჩვენი კვლევა აჩვენებს, რომ 143 ორსული ქალიდან, რომლებსაც სკრინინგის შედეგად პრეეკლამპსიის მაღალი რისკი აღმოაჩნდათ და რომლებმაც მიიღეს შესაბამისი მკურნალობა (აცეტილსალიცილის მჟავას 150 მგ დღიური დოზა), მხოლოდ 14-ს (9.8%) განუვითარდა პრეეკლამპსია. დედა-ნაყოფის სერიოზული გართულებების შემთხვევები არ დაფიქსირებულა.

Introduction. The reduction of maternal deaths is a key international development goal [2]. Hypertensive disorders are the most common medical complications during gestation [3]. Preeclampsia (PE), which complicates 2 to 4% of pregnancies globally, is progressive, unpredictable, and serious [8]. PE is the second leading cause of maternal mortality worldwide [4]. The disease burden is borne disproportionately by women in low- and middle-income countries or who are otherwise disadvantaged [6]. Georgia is also recognized to be a middle-income country, thus screening of PE in the rst trimester of pregnancy is very important for our population. Generally, PE is developed after 20 weeks of gestation and is characterized by hypertension and proteinuria [5]. Identifying women at higher risk for PE early in pregnancy, based on medical history and routine tests, could inform risk-based prevention and screening [9]. Various rst trimester prediction models have been developed. Most of them have not undergone or failed external validation, however Fetal Medicine Foundation (FMF) rst trimester prediction model (namely the triple test), which consists of a combination of maternal factors and measurements of mean arterial pressure, uterine artery pulsatility index and serum placental growth factor, has undergone successful internal and external validation [11].

US Preventive Services Task Force found adequate evidence that screening for PE results in a substantial bene t for the mother and infant [10]. Aspirin was associated with a lower rate of late-onset preeclampsia ⩾34w [7]. Between 2007 and 2010, a multitude of contradictory studies and controversial conclusions prompted Bujold et al. to publish in 2010 a meta-analysis of 34 double-blind randomized trials measuring the effect of low-dose aspirin on the incidence of preeclampsia and intrauterine growth restriction [12]. Their ndings were in accord with those of Askie et al. [13] but suggested a greater bene cial effect, especially when aspirin was started before 16 weeks of gestation (RR 0.47; 95% CI 0.34–0.65) in high-risk patients. This effect was no longer signi cant when the treatment was started after 16 weeks of gestation (RR 0.81; 95% CI 0.65–1.03) [14,18].

Methods. A prospective observational study was conducted in 143 pregnant women with con rmed high risk of preeclampsia (group l) at the Zurab Sabakhtarashvili Reproductive Clinic in 2021-2025 (august). All participants underwent a preeclampsia screening test in the rst trimester at 11-14 weeks of pregnancy. It included the recording of maternal demographic characteristics and medical history and the measurement of serum placental growth factor and soluble fms-like tyrosine kinase-1 and mean arterial pressure [15]. High-risk pregnant women were treated with 150 mg of acetylsalicylic acid throughout the pregnancy. In addition to that, in 2023-2024, 106 pregnant women who developed preeclampsia (group II) were studied at the Gudushauri National Medical Center. Results are presented as forest plot with P values for the interaction effects, group sizes, event counts and estimated odds ratios [16]. The $\chi 2$ test for interaction was used to assess statistically signi cant ($P < .05$) differences in treatment effect between subgroups [17].

Results. In 01.01.2021 – 31.07.2025, 950 preeclampsia screening tests were performed at Zurab Sabakhtarashvili Reproductive Clinic. In 503 cases were con rmed a high risk (53.4%). 143 pregnant women with high risk of preeclampsia (group I) were selected for a prospective observational study. 90.2% (129 pregnant women) of them did not develop preeclampsia, 9.8% (14 pregnant women) developed preeclampsia. Study shows that no problems with maternal or fetal health were observed in these 143 patients (maternal mortality - 0, fetal mortality - 0, hysterectomy - 0, maternal intensive care unit placement - 0.) A second group of 106 pregnant women who developed preeclampsia was studied separately. No one in this group had undergone a screening test. The following complications were noted in this group: fetal death - 13 (12.3%), hysterectomy - 5 (4.7%), maternal intensive care unit placement-

5 (4.7%). The difference in maternal and fetal adverse outcomes between the screened and unscreened groups was signi cant ($p < 0.05$) [43].

Discussion. Our study demonstrates that doing preeclampsia screening test at 13-14 weeks of Gestation and administration of acetylsalicylic acid signi cantly reduces chances of developing preeclampsia in pregnant women, suggesting a potential role in improving pregnancy outcomes.

In 1996 McDuf e et al. published that no studies directly compared the effectiveness of preeclampsia screening in a screened population vs an unscreened population [23]. In 2007 Rhode Et al. made research where 933 pregnant women received urine tests at their rst prenatal visit. The study reported equivalence in the rates of diagnosis for preeclampsia/eclampsia, high blood pressure, and cesarean deliveries [24]. In 2009-2011 Poon et al. evaluated 7,797 women with singleton, rst-trimester pregnancies attending clinics for routine care, with a 2% overall incidence of PE. The predictive model incorporated maternal factors, uterine artery Doppler, maternal MAP, PAPP-A, and PlGF. For a 5% false-positive rate, the sensitivity and speci city for early-onset PE were 93 and 94%, respectively [20,21].

How accurate are urine tests? Twelve of the studies evaluated the accuracy of urine tests for protein to creatinine ratio in 1516 pregnant women [25-36]. The test sensitivities ranged from 65% (95% CI not calculable) [35] to 96% (95% CI, 88%-99%) [34], with most falling above 81%.

In 2023 was found several immunological factors that also play a role in the development of the disease. During uncomplicated pregnancies, the ratio of T helper cells shifts towards the anti-in ammatory Th2 phenotype [37,38,39].

This article demonstrates that, while the only de nitive treatment for preeclampsia remains the delivery of the neonate and placenta, signi cant progress has been made, particularly in preventing and screening for preeclampsia.

We conclude that, while a de nitive cure for preeclampsia may not be eligible in the near future, it is likely that the assessment and enhancement of preventive methods will lead to the prevention of many cases. However, it is also important to highlight that more additional research is needed in the future to clarify the exact pathophysiology of preeclampsia and to thus identify potential therapeutic targets for more improved treatment methods [37].

Conclusion. Early-onset preeclampsia is generally more severe and leads to an early delivery, often of a growth restricted fetus. It not only increases the risk for the mother but also for the fetus and the neonate. Despite considerable research and recent development of prenatal screening, the problem is far from resolved [40,41]. Given the severity of the disorder, it is important to provide effective early screening and prevention for preterm PE [42]. Women at an increased risk of preeclampsia should be offered antiplatelet therapy, regardless of whether they are rst seen before or after 16 weeks' gestation [18].

Aknowledgments. Tbilisi State University, Zurab Sabakhtarashvili Reproductive Clinic, Gudushauri National Medical Center.

References:

1. Magee LA, Pels A, Helewa M, Rey E, von Dadelszen P, Audibert F, Bujold E, Côté AM, Douglas MJ, Eastabrook G, Firoz T. Diagnosis, evaluation, and management of the hypertensive disorders of pregnancy: executive summary. Journal of Obstetrics and Gynaecology Canada. 2014;36(5):416.
2. Khan KS, Wojdyla D, Say L, Gülmezoglu AM, Van Look PF. WHO analysis of causes of maternal death: a systematic review. The lancet. 2006 Apr 1;367(9516):1066-74.
3. Duley L, Meher S, Jones L. Drugs for treatment of very high blood pressure during pregnancy. Cochrane Database of Systematic Reviews. 2013(7):CD001449.

4. Magee LA, Nicolaides KH, Von Dadelszen P. Preeclampsia. New England Journal of Medicine. 2022 May 12;386(19):1817-32.
5. Moore GS, Allshouse AA, Post AL, Galan HL, Heyborne KD. Early initiation of low-dose aspirin for reduction in preeclampsia risk in high-risk women: a secondary analysis of the MFMU High-Risk Aspirin Study. Journal of Perinatology. 2015 May;35(5):328-31.
6. Kassebaum NJ, Barber RM, Bhutta ZA, Dandona L, Gething PW, Hay SI, Kinfu Y, Larson HJ, Liang X, Lim SS, Lopez AD. Global, regional, and national levels of maternal mortality, 1990–2015: a systematic analysis for the Global Burden of Disease Study 2015. The lancet. 2016 Oct 8;388(10053):1775-812.
7. Too GT, Hill JB. Hypertensive crisis during pregnancy and postpartum period. In Seminars in Perinatology 2013 Aug 1 (Vol. 37, No. 4, pp. 280-287). WB Saunders.
8. Kassebaum NJ, Barber RM, Bhutta ZA, Dandona L, Gething PW, Hay SI, Kinfu Y, Larson HJ, Liang X, Lim SS, Lopez AD. Global, regional, and national levels of maternal mortality, 1990–2015: a systematic analysis for the Global Burden of Disease Study 2015. The lancet. 2016 Oct 8;388(10053):1775-812.
9. Henderson JT, Thompson JH, Burda BU, Cantor A. Preeclampsia screening: evidence report and systematic review for the US Preventive Services Task Force. Jama. 2017 Apr 25;317(16):1668-83.
10. Costa FD, Murthi P, Keogh R, Woodrow N. Early screening for preeclampsia. Revista Brasileira de Ginecologia e Obstetrícia. 2011;33:367-75.
11. Bibbins-Domingo K, Grossman DC, Curry SJ, Barry MJ, Davidson KW, Doubeni CA, Epling JW, Kemper AR, Krist AH, Kurth AE, Landefeld CS. Screening for preeclampsia: US preventive services task force recommendation statement. Jama. 2017 Apr 25;317(16):1661-7.
12. Chaemsaithong P, Sahota DS, Poon LC. First trimester preeclampsia screening and prediction. American journal of obstetrics and gynecology. 2022 Feb 1;226(2):S1071-97.
13. Bujold E, Roberge S, Lacasse Y, Bureau M, Audibert F, Marcoux S, Forest JC, Giguere Y. Prevention of preeclampsia and intrauterine growth restriction with aspirin started in early pregnancy: a meta-analysis. Obstetrics & Gynecology. 2010 Aug 1;116(2 Part 1):402-14.
14. Gaspoz JM, Coxson PG, Goldman PA, Williams LW, Kuntz KM, Hunink MM, Goldman L. Cost effectiveness of aspirin, clopidogrel, or both for secondary prevention of coronary heart disease. New England Journal of Medicine. 2002 Jun 6;346(23):1800-6.
15. Atallah A, Lecarpentier E, Gof net F, Doret-Dion M, Gaucherand P, Tsatsaris V. Aspirin for prevention of preeclampsia. Drugs. 2017 Nov;77(17):1819-31.
16. Ciobanu A, Wright A, Panaitescu A, et al. Prediction of imminent preeclampsia at 35–37 weeks gestation. Am J Obstet Gynecol 2019;220:584.e1-11.
17. Poon LC, Wright D, Rolnik DL, et al. Aspirin for Evidence-Based Preeclampsia Prevention trial: effect of aspirin in prevention of preterm preeclampsia in subgroups of women according to their characteristics and medical and obstetrical history. Am J Obstet Gynecol 2017;217:585.e1-5.
18. Meher S, Duley L, Hunter K, Askie L. Antiplatelet therapy before or after 16 weeks' gestation for preventing preeclampsia: an individual participant data meta-analysis. American journal of obstetrics and gynecology. 2017 Feb 1;216(2):121-8.
19. Meher S, Duley L, Hunter K, Askie L. Antiplatelet therapy before or after 16 weeks' gestation for preventing preeclampsia: an individual participant data meta-analysis. American journal of obstetrics and gynecology. 2017 Feb 1;216(2):121-8.
20. Costa FD, Murthi P, Keogh R, Woodrow N. Early screening for preeclampsia. Revista Brasileira de Ginecologia e Obstetrícia. 2011;33:367-75.
21. Poon LC, Kametas NA, Maiz N, Akolekar R, Nicolaides KH. First-trimester prediction of hypertensive disorders in pregnancy. Hypertension. 2009;53(5):812-8.
22. United Nations Development Programme. Human Development Report 2014. Washington, DC: United Nations Development Programme; 2014.
23. McDuffie RS Jr, Beck A, Bischoff K, Cross J, Orleans M. Effect of frequency of prenatal care visits on perinatal outcome among low-risk women: a randomized controlled trial. JAMA. 1996;275(11):847-851.

24. Rhode MA, Shapiro H, Jones OW III. Indicated vs. routine prenatal urine chemical reagent strip testing. J Reprod Med. 2007;52(3):214-219.
25. Valdés E, Sepúlveda-Martínez Á, Tong A, Castro M, Castro D. Assessment of protein:creatinine ratio versus 24-hour urine protein in the diagnosis of preeclampsia [published online June 3, 2015]. Gynecol Obstet Invest. doi:10.1159/000381773
26. Bhide A, Rana R, Dhavilkar M, Amodio-Hernandez M, Deshpande D, Caric V. The value of the urinary protein:creatinine ratio for the detection of signi cant proteinuria in women with suspected preeclampsia. Acta Obstet Gynecol Scand. 2015;94(5):542-546.
27. Durnwald C, Mercer B. A prospective comparison of total protein/creatinine ratio versus 24-hour urine protein in women with suspected preeclampsia. Am J Obstet Gynecol. 2003;189(3):848-852.
28. Dwyer BK, Gorman M, Carroll IR, Druzin M. Urinalysis vs urine protein-creatinine ratio to predict signi cant proteinuria in pregnancy. J Perinatol. 2008;28(7):461-467.
29. Kyle PM, Fielder JN, Pullar B, Horwood LJ, Moore MP. Comparison of methods to identify signi cant proteinuria in pregnancy in the outpatient setting. BJOG. 2008;115(4):523-527.
30. Lamontagne A, Côté AM, Rey E. The urinary protein-to-creatinine ratio in Canadian women at risk of preeclampsia: does the time of day of testing matter? J Obstet Gynaecol Can. 2014;36(4):303-308;
31. Sethuram R, Kiran TS, Weerakkody AN. Is the urine spot protein/creatinine ratio a valid diagnostic test for pre-eclampsia? J Obstet Gynaecol. 2011;31(2):128-130.
32. Stout MJ, Scifres CM, Stamilio DM. Diagnostic utility of urine protein-to-creatinine ratio for identifying proteinuria in pregnancy. J Matern Fetal Neonatal Med. 2013;26(1):66-70.
33. Tun C, Quiñones JN, Kurt A, Smulian JC, Rochon M. Comparison of 12-hour urine protein and protein:creatinine ratio with 24-hour urine protein for the diagnosis of preeclampsia. Am J Obstet Gynecol. 2012;207(3):233.e1-233.e8.
34. Verdonk K, Niemeijer IC, Hop WC, et al. Variation of urinary protein to creatinine ratio during the day in women with suspected pre-eclampsia. BJOG. 2014;121(13):1660-1665.
35. Wheeler TL, Blackhurst DW, Dellinger EH, Ramsey PS. Usage of spot urine protein to creatinine ratios in the evaluation of preeclampsia. Am J Obstet Gynecol. 2007;196(5):465.e1-465.e4.
36. Young RA, Buchanan RJ, Kinch RA. Use of the protein/creatinine ratio of a single voided urine specimen in the evaluation of suspected pregnancy-induced hypertension.J Fam Pract. 1996;42(4):385-389.
37. Mészáros, B., Kukor, Z., & Valent, S. (2023). Recent Advances in the Prevention and Screening of Preeclampsia. Journal of Clinical Medicine, 12(18), 6020.
38. sparvarinha, M.; Madadi, S.; Aslanian-Kalkhoran, L.; Nickho, H.; Dolati, S.; Pia, H.; Danaii, S.; Taghavi, S.; Youse , M. Dominant immune cells in pregnancy and pregnancy complications: T helper cells (TH1/TH2, TH17/Treg cells), NK cells, MDSCs, and the immune checkpoints. Cell Biol. Int. 2023, 47, 507–519.
39. Doria, A.; Iaccarino, L.; Arienti, S.; Ghirardello, A.; Zampieri, S.; Rampudda, M.E.; Cutolo, M.; Tincani, A.; Todesco, S. Th2 immune deviation induced by pregnancy: The two faces of autoimmune rheumatic diseases. Reprod. Toxicol. 2006, 22, 234–241
40. Dimitriadis E, Rolnik DL, Zhou W, Estrada-Gutierrez G, Koga K, Francisco RP, Whitehead C, Hyett J, da Silva Costa F, Nicolaides K, Menkhorst E. Pre-eclampsia. Nature reviews Disease primers. 2023 Feb 16;9(1):8.
41. Arbuzova S. Common pathogenesis of early and late preeclampsia: evidence from recurrences and review of the literature. Arch Gynecol Obstet. 2024 Aug;310(2):953-959.
42. Nguyen-Hoang L, Dinh LT, Tai AST, Nguyen DA, Pooh RK, Shiozaki A, Zheng M, Hu Y, Li B, Kusuma A, Yapan P, Gosavi A, Kaneko M, Luewan S, Chang TY, Chaiyasit N, Nanthakomon T, Liu H, Shaw SW, Leung WC, Mahdy ZA, Aguilar A, Leung HHY, Lee NMW, Lau SL, Wah IYM, Lu X, Sahota DS, Chong MKC, Poon LC; FORECAST Collaborators. Implementation of First-Trimester Screening and Prevention of Preeclampsia: A Stepped Wedge Cluster-Randomized Trial in Asia. Circulation. 2024 Oct 15;150(16):1223-1235.

43. O'Gorman N, Wright D, Rolnik DL, Nicolaides KH, Poon LC. Study protocol for the randomised controlled trial: combined multimarker screening and randomised patient treatment with ASpirin for evidence-based PREeclampsia prevention (ASPRE). BMJ Open. 2016;6(6):e011801. Published 2016 Jun 28.

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Tbilisi state university, Zurab Sabakhtarashvili Reproductive Clinic, Gudushauri National Medical Center

SUMMARY

Background. Hypertensive disorders are one of the leading causes of maternal and perinatal morbidity and mortality worldwide. One pregnant woman dies in 7 minutes (70 000 in total) and one fetus (525 000 in total) dies in a minute from preeclampsia (World Health Organization, 2019).

Aim. To assess the effectiveness of the rst-trimester preeclampsia screening test.

Methods. A prospective observational study was conducted in 143 pregnant women with con rmed high risk of preeclampsia (group l) at the Zurab Sabakhtarashvili Reproductive Clinic in 2021-2025 (august). All participants underwent a preeclampsia screening test in the rst trimester at 11-14 weeks of pregnancy, which included bilateral uterine artery Doppler, mean arterial pressure, and biochemical markers (placental growth factor). High-risk pregnant women were treated with 150 mg of acetylsalicylic acid throughout the pregnancy. In addition to that, in 2023-2024, 106 pregnant women who developed preeclampsia (group II) were studied at the Gudushauri National Medical Center. Logistic regression was used to exclude confounding factors.

Results: In 01.01.2021 – 31.07.2025, 950 preeclampsia screening tests were performed at Zurab Sabakhtarashvili Reproductive Clinic. In 503 cases were con rmed a high risk (53.4%). 143 pregnant women with high risk of preeclampsia (group I) were selected for a prospective observational study. 90.2% (129 pregnant women) of them did not develop preeclampsia, 9.8% (14 pregnant women) developed preeclampsia. Study shows that no problems with maternal or fetal health were observed in these 143 patients (maternal mortality - 0, fetal mortality - 0, hysterectomy - 0, maternal intensive care unit placement - 0.) A second group of 106 pregnant women who developed preeclampsia was studied separately. No one in this group had undergone a screening test. The following complications were noted in this group: fetal death - 13 (12.3%), hysterectomy - 5 (4.7%), maternal intensive care unit placement- 5 (4.7%). The difference in maternal and fetal adverse outcomes between the screened and unscreened groups was signi cant ($p < 0.05$).

Conclusion: Our study shows that of 143 pregnant women who were found to be at high risk for preeclampsia by screening and who received appropriate treatment (daily 150 mg of acetylsalicylic acid), only 14 (9.8%) developed preeclampsia. No cases of serious maternal-fetal complications were reported.

Keywords: Preeclampsia; Infertility; Pregnancy complications; Maternal health, Screening test