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Pregnancy profile and outcome in VAMA (Very Advanced Maternal Age): a case series in a tertiary care hospital

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Abstract

Background : Advanced maternal age is considerably related with adverse obstetrical outcomes like pregnancy- induced hypertension and preterm Delivery. Caesarean delivery is also increased in those mothers. Advanced maternal age pregnancy was also found to be a major risk factor for low birth-weight and perinatal death.

We conducted eight cases of very advanced maternal age pregnancies (between 47 years to 53 years) in Dept of Gynae and Obstetrics, Jhargram Government Medical College and Hospital, Jhargram, West Bengal, India during the period January 2024 to June 2024. we successfully managed through their pregnancies outlining the conception challenges, pregnancy complications and the subsequent management and outcomes. We further undertake a literature review to assess the challenges and outcomes of pregnancies at very advanced maternal age.

Conclusion : Advanced age women had higher incidence of hypertensive disorder of pregnancies and mal presentation, were more likely to deliver by caesarean section and had increased incidence of perinatal death

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Keywords : Obstetric outcome, Perinatal outcome, Very advanced maternal age (VAMA)

Introduction :

Very advanced maternal age is characterized as being older than 40 or 45 years, whereas advanced maternal age is often regarded as being 35 years or older at the time of delivery. Over the past two to three decades, pregnancy at an advanced mother age has increased in frequency. There are several reasons why the trend of getting pregnant at a later age is shifting in the developed world. Changes in the family structure, such as an increase in late marriages or remarriages, women's pursuit of higher education, advancements in assisted reproductive techniques, and the accessibility of safe and efficient contraceptives, could be the cause.[1,2] In underdeveloped nations, however, the situation is different. Some researchers have found no correlation between these factors, whereas others have observed a higher risk of unfavorable pregnancy outcomes among older mothers. Compared to younger women, older mothers (over 35) are thought to have more unfavorable pregnancy outcomes.[3] Understanding the impact of age and pre-existing co-morbidities, such as diabetes or hypertension, which can cause complications during pregnancy and delivery and hence impede a healthy outcome, is therefore necessary for the management of pregnant women over 35.[4] Preeclampsia, antepartum hemorrhage, gestational diabetes, preterm birth, intrauterine growth restriction, and an increased chance of caesarean section are among the prenatal issues that are always more likely to occur in any pregnancy that begins at or after the age of 35.[5] Placental aging, malfunction, and insufficiency could be the cause.

Medical disorders like obesity, hypertension, and diabetes mellitus are more common in older gravidas, and they may make their pregnancies more difficult.[6,7] Additionally, they are more likely to experience unfavorable pregnancy outcomes, which could lead to a rise in maternal and perinatal morbidity and mortality.6. These consist of multiple births, premature delivery, fetal chromosome abnormalities, placenta praevia, gestational diabetes, preeclampsia, spontaneous miscarriage, ectopic pregnancy, and cesarean section.[8,9] Furthermore, present moms are more likely to be lower gravidity but have a greater socioeconomic standing, which allows them to obtain any type of healthcare they desire, in contrast to past trends where mothers at VAMA were high gravidity..[8] Healthcare professionals must prepare for the impending VAMA problem in order to assist in meeting the needs of expectant mothers.

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Few studies are conducted in our region of the world, and the majority of research on obstetric outcomes in women with advanced maternal age comes from the western world. Therefore, this study's objective was to assess how advanced maternal age affected obstetric and neonatal outcomes in a setting.

Case Presentation :

Case 1

A 47-year-old presented with severe preeclampsia with premonition symptoms. Chronic Hypertension, overt DM, preterm delivery, Diabetic foot with septicemia. Conceived spontaneously.

Presented with BP200/ 120 at 33 weeks. Magsulf given corticosteroids given. Fetal bradycardia noted.

Preterm cesarean done. Baby expired in early neonatal period due to sepsis. Post op patient needed Prazosin for BP controlling. She underwent debridement of diabetic foot ulcer. She had wound infection with MRSA sensitive to Linezolid, secondary suturing done. Needed 4 units PRBC 2 units FFP, 4 units platelets. Patient had developed HELLP antenatally

Case 2

A 53-year-old presented with no living issues. Underwent IVF with donor oocyte outside and referred to us at 27 weeks with APH. Aneuploidy screening done at first trimester by double marker and chances of Trisomy 21 Amniocentesis was not done by the patient. Anomaly screen was negative Previous 4 miscarriages. patient APL A positive all 4 times. patient had undergone D& E. She was a chronic hypertensive Presented with major antepartum haemorrhage at 28 weeks due to placenta previa. Underwent Emergency Caesarean section with placental bed bleed controlled by cervical isthmus apposition sutures, systemic devascularization done. 4 units PRBC 2 units FFP given. Baby succumbed to extreme low birth weight, (990 gm) and prematurity.

Case 3

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A 46-year-old, G4 P3 A0L3 presented at 10 week' s gestation with irregular bleeding per vagina. USG revealed molar pregnancy. Conceived spontaneously. This case highlights the incidence of GTD in extremes of age in woman's reproductive life

Serum beta HCG was 80,000. Underwent suction evacuation followed by insertion of single rod Implanon at Family Planning centre of NRSMCH and is now under surveillance

Case 4

A 45 year Primigravida presented with conceived after ovulation induction and IUI. First trimester screening showed 1:90 risk for Trisomy. Underwent Amniocentesis done showed no aneuploidy. Presented at 32 weeks with preclampsia, Pl previa and hypothyroidism. Magsulf given for neuroprotection and high BP. Labetalol and corticosteroids given.

Preterm cesarean section at 33 weeks 1.2 kg baby. Baby survived after NICU stay of 30 days

Case 5

A 51-year-old presented at 29 weeks with PIH, GDM. IVF done with donor oocyte.no Aneuploidy screening. Anomaly screen negative. Received corticosteroids, labetalol, Magsulf for both neuroprotection and high BP. 1.3 kg baby delivered by c section at 31 weeks.

Needed prolonged NICU stay. She was a G2P1 A0 L0. No living issue

Case 6

A Primi at 49 years presented with conceived by IVF with donor oocyte. Twin gestation with PIH. Presented at 29 weeks. Referred at 29 weeks. Developed GELLP at 32 weeks. Terminated at 32 weeks with Magsulf and corticosteroids coverage. received 4 units PRBC,4 units platelets, 2 units FFP. Babies survived 900 gm and 1 kg. Long NICU stay.

Case 7

A 48 years old G3 p0A2 L0 with known Case of adult onset CAH (congenital Adrenal hyperplasia) was treated in the lines of PCOS for a long time before CAH was diagnosed.

Underwent IVF twice earlier. First IVF failed. Second IVF she had prelabour Preterm rupture of membranes, with preterm vaginally delivery at 27 weeks and baby did not survive.

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After 3rd IVF she underwent encerclage by Mc Donald suturing. She was put on exogenous estrogen in first trimester and corticosteroids. Later progesterone 200 MG was inserted daily vaginally fro. 14 weeks onwards with regular screening of cervical length. Developed PPROM at 32 weeks with shortening of cervix and on cutting the suture there was funneling of membranes. Corticosteroids and Magsulf given for neuroprotection as she went into preterm labour and delivered vaginally at 32 weeks. 1.5 kg baby. Baby needed NICU care

Aneuploidy screen 1:70. Amniocentesis done no aneuploidy. Anomaly screening negative. IVF had been done with Preimplantation genetic diagnosis

Case 8

A 48-year-old G3P0 A2 L0 with no living issues underwent IVF. Twin gestation. Aneuploidy screening g1:80 chance of Trisomy 21. Amniocentesis refused by patient. Anomaly screen NAD. presented at 29 weeks with bleeding per vagina off and on. Placenta previous present. USG showed twin DCDA, managed expectancy. Delivered by c section at 35 weeks after corticosteroid and Magsulf for neuroprotection. Delivered at 35 week.1.8 and 1.6 kg babies.

Discussion :

There is a steadily rising number of women aiming to become pregnant at very advanced maternal age (VAMA).[8,10] This is because a number of factors make postponing childbirth both feasible and desirable at these ages.[11,12,13] Better access to contraceptives, more ambitious job aspirations, and advancements in reproductive technology are a few of these causes.

The average age at which first-time women give birth is steadily increasing in the western world. In the United States, the percentage of live births among women of advanced maternal age rose from 5% to almost 15% between 1970 and 2007.[14,15] According to reports from Goldman J et al. in the US, Wang Y et al. in Norway, and Hoque ME in South Africa, the prevalence of pregnancy at advanced maternal age was 21%, 33.4%, and 17.5%, respectively.[5,16,17]

In our study mothers presented with chronic Hypertension, DM, preterm delivery, diabetic foot, septicemia, bleeding per vagina etc. Six babies born extreme underweight. Many of them need needed NICU care.

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In societies where earlier marriages are common, really old maternal age is unusual. For women in these societies who continue to produce children until menopause for social or cultural reasons, pregnancies at VAMA typically mark the last or one of the last births. These women are more likely to be high parity and have a lower socioeconomic position. This contrasts with the situation in many nations, where the number of mothers who are advanced or even very advanced in age is significantly increasing. Due to their greater socioeconomic position and lower parity, women from these communities who present to VAMA are more likely to have access to high-quality healthcare and interventions. They therefore have a higher likelihood of using ART and typically have better pregnancy outcomes with fewer stillbirths.[6] Some of our patients were ofalower parity and of a high socio-economic status and were willing to incur whatever costs necessary to enable them get a baby.

Pregnancy is negatively impacted by a number of medical disorders that are linked to very advanced maternal age. Among these are hypertension, diabetes mellitus, and obesity.[6] All of our patients had normal body mass indices (BMIs) and no pre-existing conditions such as diabetes mellitus or hypertension, which is in contrast to the predicted general tendency. Larger numbers, though, might have shown us otherwise. improving their behavior when seeking health care by raising their awareness of their overall well-being. Additionally, many VAMA women have experienced better pregnancy outcomes as a result of their improved health-seeking behavior.

Conclusions

From conception to delivery, childbearing at very advanced maternal age is difficult. According to this study, VAMA pregnancies are high-risk pregnancies with higher rates of hypertensive disorders of pregnancy, gestational diabetes mellitus, and malpresentation. They also have a higher likelihood of caesarean delivery, a higher incidence of low birth weight, and perinatal deaths, all of which call for more cautious antenatal follow-up, including more careful pregnancy follow-up. In order to address the maternal need of having a child, society must prepare for the growing tendency of delayed childbearing, which will raise demand for ART and sophisticated prenatal, perinatal, and postpartum care.

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References :

1. Bianco A, Stone J, Lynch L, Lapinski R, Berkowitz G, Berkowitz R. Pregnancy outcome at age 40 and older. Obstet Gynecol. 1996;87:917-22.
2. Berkowitz GS, Skovron ML, Lapinski RH, Berkowitz RL. Delayed childbearing and the outcome of pregnancy. N Engl J Med. 1990;322:659- 64.
3. Chloe V, Ruth CF. Pregnancy and advanced maternal age. Progress Obstet Gynecol. 2006;17:113-24.
4. Naheed F, Tufail A, Kammeruddin K, Madiha S. Obstetrical risks with increased maternal age > 35 years. Pakistan J Surg. 2009;25:240-3.
5. Wang Y, Tanbo T, Abyholm T, Henriksen T. The impact of advanced maternal age and parity on obstetric and perinatal outcomes in singleton gestations. Arch Gynecol Obstet. 2011;284:31-7.
6. Carolan MC, Davey MA, Biro M, Kealy M. Very advanced maternal age and morbidity in Victoria, Australia: A population based study. BMC Pregnancy Childbirth 2013 Mar 27;13:80.
7. Simchen MJ, Yinon Y, Moran O, Schiff E, Sivan E. Pregnancy outcome after age 50. Obstet Gynecol 2006 Nov;108(5):1084–8.
8. Carolan M. Maternal age > 45 years and maternal and perinatal outcomes: A review of the evidence. Midwifery 2013 May;29(5):479–89.
9. Wennberg AL, Opdahl S, Bergh C, et al. Effect of maternal age on maternal and neonatal outcomes after assisted reproductive technology. Fertil Steril 2016 Oct;106(5):1142–1149.e14.
10. Fitzpatrick KE, Tuffnell D, Kurinczuk JJ, Knight M. Pregnancy at very advanced maternal age: A UK population-based cohort study. BJOG 2017 Jun;124(7):1097–106.
11. Giri A, Srivastav VR, Suwal A, Tuladhar AS. Advanced maternal age and obstetric outcome. Nepal Med Coll J 2013 Jun;15(2):87–90.
12. Weissmann-Brenner A, Simchen MJ, Zilberberg E, Kalter A, Dulitzky M. Combined effect of fetal sex and advanced maternal age on pregnancy outcomes. Med Sci Monit 2015 Apr 20;21:1124–30.
13. Kenny LC, Lavender T, McNamee R, O'Neill SM, Mills T, Khashan AS. Advanced

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maternal age and adverse pregnancy outcome: Evidence from a large contemporary cohort PLoS One 2013;8(2):e56583.

14. Matthews TJ, MacDorman MF. Infant mortality statistics from the 2007 period linked birth/infant death data set. Nat'l Vital Stat Rep. 2011;59:1-30.
15. Osterman MJ, Martin JA, Matthews TJ, Hamilton BE. Expanded data from the new birth certificate 2008. Nat'l Vital Stat Rep. 2011;59:1-28.
16. Cleary-Goldman J, Malone FD, Vidaver J. Impact of maternal age on obstetric outcome. Obstet Gynecol. 2005;983-90.
17. Hoque ME. Advanced maternal age and outcomes of pregnancy: a retrospective study from South Africa. Bio Med Res. 2012;23:281-5.