Bad Obstetric History-
the story that never began….

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Thank you dr. elora for giving me the floor to talk. From previous presentation we saw the miserable journey of a mother towards a successful child birth. BOH is the story that never began. Assalamualaikum I am Dr. Qumrun Nassa Ahmed going to continue our presentation.

Definition-

The term **“Bad Obstetric History”** is often used to those patients in whom the obstetrical future is likely to be modified by the nature of the previous disaster.

According to WHO the concerned topic included-

- 1st or 2nd trimester miscarriages
- Still births
- Neonatal deaths
- Pre-term labour
- Fetal anomalies

Recurrent causes of Bad Obstetric history

- **Pre-eclampsia, Eclampsia**
- Endocrine factors- **GDM**, Thyroid disorder
- **Rh iso-immunization**
- Acquired / Inherited thrombophilia
- Infection (bacterial vaginosis, TORCH,)
- Anatomical factors (uterine / cervix)
- Parental genetic disorders

I liked to highlight on some of the condition that our patient suffered

RECURRENT PREGNANCY LOSS (RPL)

- Two or more consecutive or non-consecutive spontaneous pregnancy losses occurring before viable age.

- Recurrence suggests

a persistent cause

(not just a bad luck)

which must be identified and treated

When To Start Investigating?

- ✓Ideally after 3 losses
- ✓Earlier if high risk pt like-
  - elderly,
  - with medical disorders
  - known family history.

- **Aim of investigation ?**

To learn from the past pregnancies and

To ensure a more favorable outcome in the current or future pregnancy

RPL investigation panel-

- **Genetic Evaluation:** karyotyping and others.
- **Immunological Workup:** like antiphospholipid antibody syndrome,
- **Hormonal and Metabolic Evaluation: D**iabetes, Thyroid problems, or hyperprolactinemia.
- **Anatomical Assessment:** ultrasound or hysteroscopy.
- **Infection Screening**
- **Other Factors:** Evaluating lifestyle factors like smoking, caffeine intake, and BMI.

Now a days antiphospholipid antibody syndrome is considered as the most common cause of RPL. So, what is APLA syndrome

Antiphospholipid antibody syndrome (APLA)

- Antiphospholipid syndrome is a disorder of immune system , characterized by excessive clotting of blood, thrombocytopenia & /or adverse pregnancy outcomes
- An acquired autoimmune thrombophilia

Anti-phospholipid Antibody

- Anti-cardiolipin Antibody
- Lupas Anticoagulant
- Anti- beta2 – glycoprotein- 1 Antibody
- Other Antibodies

Specific treatment of APLA Syndrome

- Prophylactic Heparinization-
  - UFH
  - LMWH- 40 mg SC twice daily
- Low dose ASPIRIN-75 mg PO daily

Now I would like to focus the spot light on Hypertensive disorder of pregnancy. 80% of complication from HDP is found in the patient with pre-eclampsia severe features.

Pre eclampsia (PE):

Preeclampsia is classified as occurrence of new-onset hypertension with BP ≥140/ 90 mm Hg, on two occasions at least 4 hours apart after 20 weeks of gestation and significant Proteinuria.

PE can be-

- Preeclampsia without severe features
- Preeclampsia with severe features

Preeclampsia with Severe features-

- **BP 160/110** mm of Hg
- Thrombocytopenia- platelet count <100000/cmm
- Renal insufficiency- S. creatinine >1.1 mg/ dl
- Impaired liver functions- elevated liver transaminases ≥ twice normal
- Pulmonary edema
- Cerebral or visual symptoms- Headache, Blurred vision.
- Oliguria (passing less than 400 mL urine in 24 hours).
- Upper abdominal pain (epigastric pain or pain in right upper quadrant)

Gestosis score to find risk assessment of Pre Eclampsia

A score of 3 or more generally indicates a higher risk of developing pre-eclampsia.

High risk factors (score 3)

- 1. **Pregestational DM**
- 2. Chronic hypertension
- 3. Mental disorder
- 4. Inherited/acquired thrombophilia
- 5. Maternal chronic kidney disease
- 6. **Autoimmune disease (SLE/APLAS**/RA)
- 7. Pregnancy with ART (Donar surrogacy)

Moderate risk factors (score 2)

- 1. Maternal hypothyroidism
- 2. **Family h/0 preeclampsia**
- 3. **GDM**
- 4. Multiple pregnancy
- 5. Obesity (BMI>35)
- 6. **Hypertensive disease during previous pregnancy**

Mild risk factors (score 1)

- 1. Age older than 35 years
- 2. Age younger than 19 years
- 3. Maternal anaemia
- 4.Obesity (BMI >30)
- 5. Primigravida
- 6. Short duration of paternity (cohabitation)
- 7.Woman born as small for G.A.
- 8. PCOS
- 9. Interpregnancy interval >5yrs
- 10. Conceived with ART (IVF/ICSI)
- 11. MAP>85
- 12. Chronic vascular disease (dyslipidaemia)
- 13. Excessive weight gain during pregnancy

Gestosis score to find risk assessment of Pre Eclampsia

A score of 3 or more generally indicates a higher risk of developing pre-eclampsia.

Prophylactic and presumptive measures for HDP

- **Aspirin-** start ideally before 12 weeks but definitely before 20 weeks, with 75–150 mg/day up to 36 weeks. (ISSHP, 2018)
- **Ca+ supplementation-** 1.5 to 2gm/day
- **Uterine artery doppler flow** at 16 to 22 weeks to see diastolic notch.
- **PlGF** test between 20 week up to 35 weeks if suspected of developing pre-eclampsia
- **Lifestyle advice-**weight management/exercise/diet/reducing salt intake
- They are also considered for more frequent ANC visit, frequent BP monitoring, and assessment for proteinuria.

PE with severe features

- **Principles of management:**
  - - Admit and Stabilize patient at ICU or HDU
  - - Close monitoring of mother and fetus
  - - Start antihypertensive: Oral labetalol
  - - Give Mg SO4
  - - Plan delivery
  - - Prevent complications

Antihypertensive medications (Oral)

Drug	Dose	Side Effects
Labetalol	100 mg bd-tds (max 2400 mg)	IUGR, hypoglycemia
Methyldopa	250 mg tds(max 2g)	Fatigue, depression
Nifedipine	10 mg bd- tds (max 120 mg)	Hypotension, headache

Drugs in hypertensive emergencies

Drug	Dosage (LSS)	Repeat
Labetalol	10 mg IV	If D. BP remains >110 mm Hg after 10 mins, give 20 mg IV; Increase dose to 40 mg and 80 mg until satisfactory response
Hydralazine	5 mg IV slowly over 5 minutes	Repeat hourly as needed or give hydralazine 12.5 mg IM every 2 hours as needed
Nifedipine	5 mg oral	If D. BP remains above 110 mm Hg after 10 minutes, give an additional 5 mg

A women with PE having severe features if pregnant for >34 weeks or more, she should Be delivered at once. If pregnancy is ,34 weeks expectant management can be done cautiously after hospitalization by steroid for lungs maturity

Plan of delivery:

HDP	Time of delivery	
Gestational HTN	At term	
PE without severe features	- At term (37 weeks) - Any worsening maternal or fetal condition	
PE with severe features	>34 Weeks - Deliver	<34 Weeks Expectant management - Admit - Steroids - Antihypertensives - MgSo4 - Maternal & fetal Monitoring
Eclampsia	Deliver in 12 hours	

HELLP syndrome is the most devastating complication of PE

- **HELLP syndrome-** is a life-threatening condition. The acronym stands for- Hemolysis,
  - Elevated Liver enzyme levels,
  - Low Platelet levels.

Maternal complications

- Eclampsia,
- Placental abruption,
- DIC,
- Excessive hemorrhage,
- Liver and kidney failure,
- Mortality

Infant complications

- IUGR,
- RDS,
- IUD/ Still birth
- Early neonatal death

Post natal care

- **Close monitoring** - first 3 days of puerperium
  - monitored BP every four hours.
- **Antihypertensives** - continued during puerperium
  - withdrawn slowly over days, not ceased abruptly
- **Eclamptic seizures -** may develop for the first time in the early post-natal period.
- **NSAID -** Avoid for postpartum analgesia in pre-eclampsia and AKI.

From previous presentation you saw how meticulously our patient was managed for GDM by multi-disciplinary approach , though she had suffered from PTL, PE, 7 sudden IUFD among the complications of GDM.

Endocrine factors- Diabetes mellitus

Each category of BOH can be caused by GDM-

- Recurrent spontaneous abortions
- **Preterm labour**
- Infections-Chorioamnionitis
- **Pre eclampsia**
- Poly-hydroamnios
- Fetal Macrosomia
- Congenital malformations-
- **Sudden IUFD**

Our patient has A negative blood group. So, she is a rhesus negative mother. Though the incidence of Rh negative pregnancy in Bangladesh is only 2-3% among pregnant women.

Rhesus(RHD) Negative pregnancy

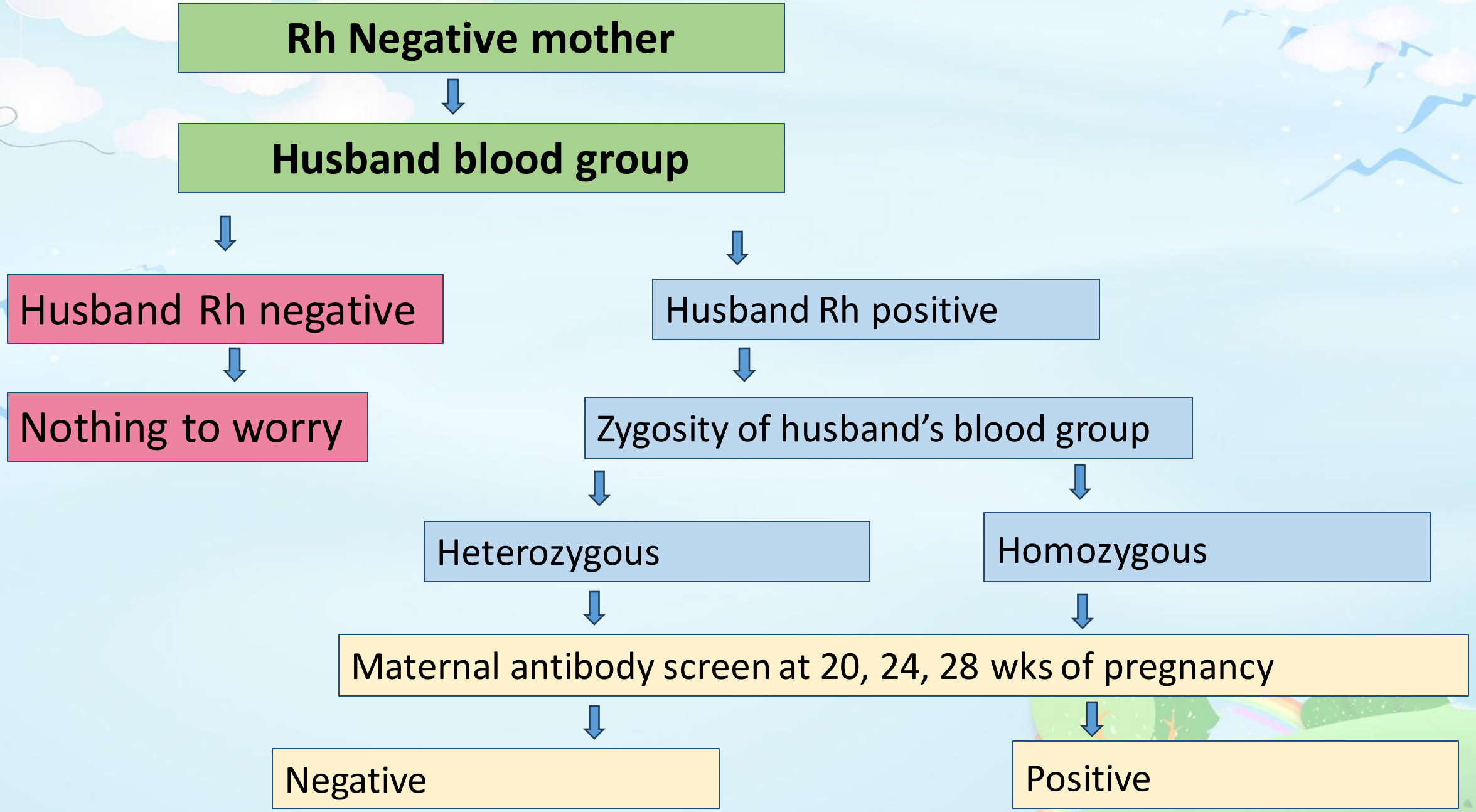
In Bangladesh, the incidence of Rh-negative blood among pregnant women is relatively low, around 2-3%.

Among all Rh negative mother having rh positive fetus only 17% will develop Rh alloimmunization so rest of the mothers are immunologically non responder.

Non responder in Rh-negative pregnancy-

- Inborn inability to respond to the Rh antigen stimulus. **Immunological non-responder—** found in 30% of Rh-negative women.
- **Variability in antigenic stimulation** of the D antigen.
- **ABO incompatibility** has a protective effect against the development of Rh sensitization.
- **Volume of fetal blood entering** into the maternal circulation if less than 0.1 mL, is considered less chance of sensitization.

Evaluation of a Rh-negative mother



Evaluation of a Rh-negative mother

Rh negative mother

Rh positive father

Maternal antibody screen at 20, 24, 28 wks of pregnancy

Negative

Administration of 300ugm of immunoglobulin at 28 wks

At delivery of the baby the Rh status of the newborn should be checked

Rh Negative baby

No further treatment required

Rh positive baby

Administration of 300 ugm of anti D within 72 hours of delivery

Positive

Manage as Rh sensitized pregnancy

Non-invasive prenatal testing (NIPT)/ Cell free fetal DNA test (cffDNA)

- A prenatal screening test, analyzes fetal DNA found in the mother's blood.
- It is a non-invasive procedure, meaning it doesn't involve any risk to the fetus or mother.
- This allows for targeted administration of Rh immune globulin (RhIG), reducing unnecessary treatment for mothers carrying Rh-negative babies.
- It screen for-
  - Certain chromosomal abnormalities in the fetus
  - Fetal sex and
  - Fetal blood group
- The test can be done as early as 10 weeks into the pregnancy.
- It's not a diagnostic test and positive results may require further evaluation

At the end of the presentation what take home massage we can give to our new doctors…….

Take home massage

- BOH management is a challenge for both parents and clinician.
- World wide incidence is 1-2%. The risk is as high as 33% after three losses.
- Studies showed in 25-30% case cause was HDP, 40% APLA syndrome, though in almost one third cases causes remain unexplained.
- BOH need to be managed according to the diagnosis, but where cause is unexplained, she should be managed by-
  - Prenatal counselling
  - Psychological support
  - Healthy life style
  - Balanced and nutritious diet,
  - Adequate body weight maintain
- BOH require proper evaluation and a keen judgement, to find out risk factors, investigate sharply and manage enthusiastically.

Thank you!

ANY QUESTIONS?

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