Traumatic Brain Injury during Pregnancy: Caring through Collaboration

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LEARNING OBJECTIVES

After viewing this presentation, participants will be able to navigate the following new horizons:

1. Identify useful approaches to collaboration, interdisciplinary care.
2. Learn about alternate screening methods for gestational diabetes mellitus (GDM).
3. Recognize when to offer and what to discuss regarding counseling for Neonatal Abstinence Syndrome (NAS).

CASE STUDY: R.P.

History of Present Illness: 22 y/o, G1, L0, S0, scheduled for planned admission to tertiary care Antepartum unit at 35 6/7 weeks gestational age (GA) secondary to traumatic brain injury (TBI).

- R.P. was apathetic, withdrew from touch, and had minimal weight-bearing ability.
- She had intact bowel and bladder function and required a two-person transfer.
- Primary form of communication was minimal hand signals and shrugging.

At the time of admission, R.P. was not up-to-date on immunizations, was not taking a daily prenatal vitamin, and had not been screened for GDM between 24-28 weeks GA.

Background: Ejected from a car during a motor vehicle collision (MVC) at 11 weeks GA. Suffered a closed head injury and underwent a right sided decompressive craniotomy, resulting in a 10 cm flap.

Risk factors for development of NAS: R.P. had a history of social use of marijuana and methamphetamines; previously employed at a fast food establishment; father of baby unknown; temporary guardianship established through hospital attorney prior to admission; primary support person was R.P.'s mother.

Medications: gabapentin, lamotrigine, lorazepam, oxycodone/acetaminophen, and topiramate.

Caring through Collaboration

Neonatal intensive care unit nursing staff

 babies and their families (Scheffel et al., 2016; Raab et al., 2016).

Weekly meetings began as soon as R.P. was accepted into OB practice (three weeks before admission).

Discussions about healthcare decisions (consent for immunizations and cesarean section delivery) were ongoing with court appointed guardian.

Planning for R.P.’s discharge started at admission to plan for a smooth transition of care.

Antepartum unit at 35 6/7 weeks gestational age (GA) secondary to traumatic brain injury (TBI).

Birth of R.P. was initiated by low transverse cesarean section at 38 weeks due to frank breech presentation of fetus.

"Baby R.P." was admitted to the NICU for close surveillance. No evidence of NAS was noted.

A viable male infant was born weighing 2495 gm with Apgar scores of 8, 9, and 9.

R.P. was unable to chew required amount of food in thickened liquids.

Alternatives to recommended glucose screening for GDM:

High HgbA1C (Jaenicke et al., 2014; Lee et al., 2014)

Fructosamine blood values (Finkbeiner & Andrade, 2014)

This method was selected if HgbA1c was 4.4%, indicating her average blood sugar readings over the past three months were approximately 40 mg/dL.

This method was selected if HgbA1c was 4.6% and an HgbA1c was easily obtained.

GESTATIONAL DIABETES MELLITUS SCREENING

R.P. was unable to consume glucose within five minutes due to silent aspiration as evidenced by poor labial seal when drinking. Ordered to have nectar instead of glucola.

R.P. was discharged home following delivery after an uneventful postpartum course. She was readmitted six days later for repair of the open cranial flap.

R.P. was discharged home with Baby R.P. two weeks after delivery.

INTERPROFESSIONAL CARE TEAM MEETINGS

- An interdisciplinary, collaborative approach is required to meet the needs of all pregnant women and their families (Scheffel et al., 2016; Raab et al., 2016).

- Communication was facilitated during team meetings which assured transition of care from one service to another.

- Interprofessional meetings fostered collegial respect and trust.

- Weekly meetings began as soon as R.P. was accepted into OB practice (three weeks before admission).

- Discussions about healthcare decisions (consent for immunizations and cesarean section delivery) were ongoing with court appointed guardian.

- Planning for R.P.’s discharge started at admission to plan for a smooth transition of care.

CONCLUSION

- R.P.'s newborn was at high risk of experiencing Neonatal Abstinence Syndrome (NAS) due to high dose, chronic exposure to opioids following delivery.

Anticipatory counseling for families at risk for NAS at OPRMC:

1. No data exists to definitively stratify risk for NAS based on specific maternal opiate use. Individual differences must be considered.

2. Prenatal consultation with neonatologist to discuss potential for NAS in newborn.

3. Discuss plan of care following delivery, including admission to Neonatal Intensive Care Unit (NICU) for a minimum of five to seven days. Discharge dependent on close follow up.

4. Educate families on behaviors displayed by newborns that indicate NAS and how evaluated by nurses.