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Chorioamnionitis: Prevention and Nursing Management

After 20 hours of labor Ms. B, G1P0, now has a temperature of 38 degrees C, her abdomen is tender to the touch and the internal fetal scalp electrode is showing fetal tachycardia with a baseline fetal heart rate of 170. She has been on bedrest after receiving an epidural 15 hours ago after which her membranes were artificially ruptured revealing clear amniotic fluid.

The use of hands and fingers can give the labor and delivery nurse valuable information. They can be used to determine fetal position, fetal size, the strength of contractions and fetal wellbeing through the use of scalp stimulation, fingers also tell nurses cervical dilation, to assess labor progression. The above case represents a scenario where a patient has possible chorioamnionitis.

Definition/ Diagnosis

The primary clinical findings associated with chorioamnionitis include maternal fever (≥ 38.0 degrees C), maternal (>100 bpm) and/or fetal tachycardia (>160 bpm), increased leukocytes, uterine tenderness, purulent or foul smelling amniotic fluid. Subclinical chorioamnionitis does not present with signs and symptoms of a clinical infection but, should be suspected with premature prolonged rupture of membranes and preterm labor.

Possible causes

Chorioamnionitis can be caused inadvertently through a medical examination like an amniocentesis or through the placenta from a maternal blood borne infection. However it is primarily thought to be caused from bacteria from the vagina or a

urogenital tract infection ascending into the uterus. There are other factors that can lead to the development of chorioamnionitis which include; maternal immunocompromise, the use of internal monitoring devices, amnioinfusion, prolonged rupture of membranes and more than four vaginal examinations in labor (Curtin, Katzman, Floresue & Metlay, 2012).

Another factor to consider is lack of perineal hygiene during labor, especially for those women who labor in bed due to an epidural. As labor progresses there are increased secretions that create an environment for bacteria to grow which can ascend into the vagina, through cervical checks and with the use of internal monitors.

Prevention

Chorioamnionitis is a risk for all laboring patients however nurses providing patient care have an opportunity to decrease this risk. First it is important to remember that elective inductions may increase the use of invasive interventions and procedures such as artificial rupture of membranes, internal monitors and increase the number of vaginal exams that a woman receives during labor.

Nurses should encourage ambulation and upright positions and provide labor support to their patients to decrease the need for early epidurals and laboring in bed. Avoid the use for invasive vaginal procedures unless clearly clinically necessary. Discourage unnecessary rupture of membranes. Document the number of invasive vaginal interventions and provide regular perineal hygiene.

The number of vaginal exam is related the increased risk for chorioamnionitis and a practice change that can reduce this risk. Vaginal exams should only be performed if the information obtained will change the management of labor. Nurses providing continuous one to one labor support should be able to pick up on the clues that labor is progressing such as changes in the women's verbalization, facial expression and body language as well as the presence of bloody show and involuntary pushing (Borders, Lawton, & Martin, 2012). The risk of chorioamnionitis begins to rise after three or more vaginal examinations and after eight vaginal examinations the risk increases five-fold (Borders, Lawton, & Martin, 2012).

Treatment

Treatment includes the use of broad spectrum intrapartum antibiotics such as Ampicillin, Gentamycin and antipyretics. Patients should be monitored for a response to the antibiotics and for signs of worsening infection. The pediatrician caring for the infant needs to be aware that the mother had chorioamnionitis do they can plan for additional care for the newborn if needed.

SEND QUESTIONS OR COMMENTS TO:

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References:

Borders, N., Lawton, R., & Martin, S. (2012). A clinical audit of the number of vaginal examinations in labor: ANOVEL idea. *Journal of Midwifery and Women's Health, 57*(2), 139-144. doi:10.1111/j.1542-2011.2011.00128x

Curtin, W.M., Katzman, P.J., Floresue, H., & Metlay, L.A. (2013). Accuracy of signs of clinical chorioamnionitis in the term parturient. *Journal of Perinatology, 33*(6), 422-428. doi:10.1038/jp.2012.135

Hastings-Tolsma, M., Bernard, R., Gilbert Brody, M., Hensley, J., Koschoreck, K., & Patterson, E. (2012). Chorioamnionitis: Prevention and management. *The American Journal Of Maternal and Child Nursing, 38*(4), 206-212. doi:10.1097/NMC.0b013e31236bb7