Placenta abruptio -- a nursing perspective research paper

Family, Abortion

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Abstract

This paper presents the condition of placenta abruptio, or premature separation of the placenta from the uterus, from a nursing perspective. It includes description of the condition including the pathophysiology of maternal vessel rupture and intrauterine blood accumulation, the uncertain etiology and known risk factors. Signs and symptoms such as abdominal pain, shock symptoms and uterine rigidity are described. Specific medical interventions such as aggressive monitoring and blood transfusions and surgical treatments including emergency caesarian section are reviewed. The paper also describes diagnostic studies for this condition including blood testing and fetal cardiotography and discusses the patients' (maternal and fetal) prognosis. The paper concludes with a nursing process based plan of care for this condition including suggestions for assessment for the presence of the condition including possible presence of blood, fetal heart rate and maternal blood pressure changes, and shock symptoms. The nursing diagnosis is provided, and the paper concludes with directions for planning, implementation, and evaluation of the nursing plan.

Placenta Abruptio – A Nursing Perspective

The Disease Process

Placenta abruptio is early separation of the placenta from the uterine wall. It is caused by rupture of the maternal vessels where it interfaces with the

extensions of the placenta. Blood then accumulates, separating a layer of the uterus still attached to the placenta from the rest of the uterine layers (Ananth and Kinzer, 2013).

Pathophysiology

The bleed can range from small and self-contained to large enough to cause complete or near-complete separation of the placenta from the uterus. Because the separated portion no longer functions in supporting the fetus, this situation, combined with prostaglandin release, can compromise the fetus (Chamberlain and Steer, 1999).

Etiology

For most occurrences, the precise etiology of placenta abruption remains speculative, although a small percentage is due to mechanical damage from trauma (Ananth and Kinzler, 2013). Risk factors can include previous preterm abruption, hypertension, preeclampsia, cocaine use, smoking, trauma, and premature rupture of the amniotic sac (Karri and Dwarakanath, 2005).

Signs and Symptoms

Symptoms of placenta abruptio include abdominal pain, severe shock symptoms beyond visible blood loss, and possibility of vaginal bleeding, often of old blood. Signs can include shock, spasm of the uterus, tender uterus, fetal parts hard to feel, and absence of fetal heartbeat (Chamberlain and Steer, 1999).

Medical Interventions and Medications

Medical interventions include treating the shock with oxygen, intravenous lines, possible administration of blood units or of cryoprecipitate (fresh frozen plasma), and morphine for pain if fetus is dead.

Surgical treatment and diagnostic studies

Surgical treatments can include a caesarian section delivery if the fetus is still alive and gestation is mature. Otherwise, delivery of the dead fetus can be induced by rupturing the membranes once the patient is stable. One diagnostic area is blood tests including platelet count to determine if the patient has developed disseminated intravascular coagulopathy (DIC), or systemic activation of blood coagulation. A second diagnostic test is a cardiotography of fetus to see heart rate changes due to hypoxia (Chamberlain and Steer, 1999).

Prognosis

The prognosis of placenta abruption is fetal and maternal distress with continued bleeding. Depending on the degree of placental separation, the adverse outcome of fetal death will occur unless an immediate caesarian section is performed (Karri and Dwarakanath, 2005). The mother can develop DIC and the fetus can suffer from effects of prematurity, depending on gestation.

Nursing Care Plan - Assessment

The nursing care plan for placenta abruption is as follows (Vera, 2011). Assess-mentinvolves looking for loss of blood, examining fetal heart trace

(FHT) for signs of hypoxia, noting altered maternal blood pressure and pulse from baseline, accessing abdominal pain and rigidity, and looking for symptoms of shock including pallor and changes in level of consciousness (LOC).

Nursing Diagnosis

Presence of these indicates a diagnosis of ineffective tissue perfusion because of blood loss secondary to premature separation of the placenta.

Planning

The plan is to monitor the patient closely due to the possible immediate need for surgical intervention and possible rapid change in maternal and/or fetal condition.

Implimentation

Some non-surgical interventions that can be implemented include assessing vital signs, O2 saturation, and skin color; administering blood or cryoprecipitate, monitoring for restlessness, anxiety, hunger, and changes in LOC; monitoring inputs and outputs (I & O); monitoring FHT, assessing uterine rigidity, irritability, and pain. Also the patient should be taught not to apply uterine pressure and to immediately report signs of thrombosis (leg pain, unilateral leg swelling, pale skin).

Evaluation

Evaluation of this plan will involve success at stabilization of the maternal and fetal condition and ultimately, if gestation is mature enough, a successful delivery of a live infant.

References

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