

THE ROLE OF FUNDAL PRESSURE

In some hospitals, nurses feel pressured by physicians to use fundal pressure when they feel it is not necessary. A clinical disagreement at the bedside can set the stage for litigation should an adverse outcome result. A plan agreed upon by all health care providers should be in place on this issue. In “Fundal Pressure During the Second Stage of Labor” by Kathleen Rice Simpson and Eric Knox, the controversial role of fundal pressure is reviewed clinically and as a risk management issue. This article may be found in *MCN*, vol. 26, no.2, March/April 2001, for your personal review, and taking the time to read the above article in its entirety may prevent a lawsuit.

What is fundal pressure?

It is the application of steady pressure on the fundus of the uterus. The amount of pressure varies according to the strength of the person applying the pressure. The hand should be on the fundus at a 30-40 degree angle to the maternal spine in the direction of the pelvis. Direct downward pressure should be avoided as it may cause vena cava compression resulting in maternal hypotension.

When is fundal pressure indicated?

1. During artificial rupture of membranes to guide the fetal head against the cervix if fetal station is high. This may decrease the risk of prolapsed umbilical cord.
2. During application of fetal scalp electrode if fetal station is high and there is indication for placement. Fundal pressure may make an easier application.
3. When the fetal head is crowning and an expeditious birth is necessary.

When is fundal pressure contraindicated?

Fundal pressure should be avoided if shoulder dystocia is identified. If given in this circumstance, the shoulder will be further impacted and increase chances of injury to the baby. In one study, there was a 77 percent injury rate when fundal pressure was used as the only maneuver to relieve shoulder

dystocia. Correct procedure is suprapubic pressure directed away from the pubic bone to the left or right side using the palm of your hand and McRobert's Maneuver (hyperflexion of thighs). Other maneuvers are Woods (rotation maneuver), Gaskin (hands and knees position), and Zanvanelli (returning the head to the vagina).

As a point of clarification – fundal pressure has no role in shoulder dystocia!

Fundal pressure as a legal issue

One can find many web sites where parents claim excessive fundal pressure as the cause of their injured baby. It is and has been an issue in Iowa. Whether this is evidenced-based information or not is inconsequential when it comes before a jury. There is little in peer-reviewed journals about fundal pressure except regarding shoulder dystocia. Fundal pressure is not formally taught in either nursing or medical educational programs. It seems to be “passed on” from experienced caregivers to new personnel. If fundal pressure was a risk-free procedure, there would be no issue, but it can actually cause shoulder dystocia. For instance, this can occur when the head of the fetus, which would not have descended on its own, is delivered due to concurrent fundal pressure and vacuum extraction. If fundal pressure is used, medical record documentation should include indication, number of applications and maternal-fetal response.

Complications

Because most maternal-fetal injuries related to fundal pressure are not reported in the literature for medical-legal reasons, it is difficult to quantify risks to mother and baby. However, the following may occur:

- *Maternal* – perineal tears, ruptured uterus, inverted uterus, hypotension, respiratory distress, abdominal bruising, fractured ribs, ruptured liver and pain.
- *Fetal* – brachial plexus injuries, fractured humerus and clavicle, hypoxemia, asphyxia, increased intracranial pressure, cord compression, subgaleal hemorrhage and spinal cord injuries.

Alternatives to fundal pressure to shorten a normal second stage of labor:

- Patience of both nursing and medical care providers
- Avoidance of arbitrary time frames to determine length of second stage
- Analgesic versus anesthetic level for labor epidural
- Allowing passive fetal descent and delayed pushing
- Directed coaching supporting the woman’s urge to push when appropriate.
- Careful analysis of potential risks and benefits, using the principle, “First, do no harm.”

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