Leopold's Maneuver

Leopold maneuver is a technique used to palpate the gravid uterus systematically. It is used to determine the position, presentation, and engagement of the fetus in utero.

Leopold's Maneuvers may be difficult if not impossible to perform and interpret in;
- Obese patients
- If the placenta is anteriorly implanted

Generally, this abdominal palpation method is low cost, easy to perform, and non-invasive.

First Maneuver - After outlining the contour of the uterus and ascertaining how nearly the fundus approaches the xiphoid cartilage, the examiner gently palpates the fundus with the tips of the fingers of both hands in order to define which fetal pole is present in the fundus.

The fetal breech gives the sensation of a large, nodular body, whereas the head feels hard and round and is more freely movable and ballottable.

Second Maneuver - After the determination of the pole of the fetus that lies in the fundus, the palms of the examiner's hands are placed on either side of the abdomen, and gentle but deep pressure is exerted.

On one side, a hard, resistant structure is felt, the back; and on the other, numerous small, irregular and mobile parts are felt, the fetal extremities.

In pregnant women with thin abdominal walls, the fetal extremities can often be differentiated, but in heavier women, only these irregular nodulations may be felt. In the presence of obesity or considerable amnionic fluid, the back is felt more easily by exerting deep pressure with one hand while counter-palpating with the other. By next noting whether the back is directed anteriorly, transversely, or posteriorly, a more accurate picture of the orientation of the fetus is obtained.

Third Maneuver - Employing the thumb and fingers of one hand (Pawlick’s grip), the examiner grasps the lower portion of the maternal abdomen, just above the symphysis pubis. If the presenting part is not engaged, a movable body will be felt, usually the fetal head.

The differentiation between head and breech is made as in the first maneuver. If the presenting part is not engaged, all that remains to be defined is the attitude of the head. If by careful palpation it can be shown that the cephalic prominence is on the same side as the small parts, the head must be flexed, and therefore the vertex is the presenting part.

When the cephalic prominence of the fetus is on the same side as the back, the head must be extended. If the presenting part is deeply engaged, however, the findings from this maneuver are simply indicative of the fact that the lower pole of the fetus is fixed in the pelvis; the details are then defined by the last (fourth) maneuver.

Fourth Maneuver - The examiner faces the mother's feet and, with the tips of the first three fingers

of each hand, exerts deep pressure in the direction of the axis of the pelvic inlet.

If the head presents, one hand is arrested sooner than the other by a rounded body, the cephalic prominence, while the other hand descends more deeply into the pelvis.

In vertex presentations, the prominence is on the same side as the small parts; and in face presentations, on the same side as the back. The ease with which the prominence is felt is indicative of the extent to which descent has occurred.

In many instances, when the fetal head has descended into the pelvis, the anterior shoulder of the fetus may be differentiated readily by the third maneuver. In breech presentations, the information obtained from this maneuver is less precise.