仁安醫院
UNION HOSPITAL

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Procedure Information

Normal Spontaneous Delivery (NSD)

Introduction

Normal Spontaneous Delivery (NSD) is the delivery of the baby through the birth canal without any surgery. Mother can decide to have a baby through a drug-free method or pain relief medications. NSD is the common form of delivery since it is lower risk and has a speedy recovery.

Vaginal Birth after Caesarean Section (VBAC)

The risks and benefits of VBAC compared with caesarean section are not entirely certain. VBAC will have 2–3 times increased chances of uterine rupture. Majority of published studies have reported successful delivery of 72–75% in VBAC cases. Client will be fasting and on intravenous infusion in the early stage of labour. Continuous fetal heart monitoring will be conducted during the entire labour process. If the labour is not progressing well or any problems arise at any time, caesarean section could be considered. Please discuss with your obstetrician for further details.

Procedures

At the beginning of NSD, the mother experiences contractions at regular intervals. Each contraction pushes the cervix to open. When the cervix is fully dilated, the presenting part of the fetus emerges and then comes out through the birth canal.

1. When the cervix is gradually opened, contractions become stronger. The contractions may last 60 to 90 seconds with almost no rest in between. Mother will feel an uncontrollable urge to push or bear down. Please follow the doctor or midwife's instructions before pushing.
2. When the fetal presenting part engages into the birth canal, contractions will decrease. Continue to push down in accordance with the rhythm of the contraction will further help the baby passes through the birth canal.
3. When crowning occurs, the mother may have a burning sensation in the perineum.
4. Doctor may make a small cut to enlarge the vaginal opening to avoid a tear of the perineum.
5. Baby's shoulders leave and come out of the birth canal.
6. The umbilical cord is cut and tied.
7. Delivery of the placenta takes place and the doctor or midwife will check for its completeness.
8. The wound will be sutured afterwards.

* If the mother had a history of previous caesarean section, caution will be taken to avoid tearing of the uterine scar.

There are three common procedures which may be required during the process of normal spontaneous delivery:

1. Artificial Rupture of Membranes (ARM)
   ARM is considered to help release prostaglandins and improve the level of oxytocin to speed up the contractions and accelerate the labour process. The indications for ARM are:
   - The cervix is ready for induction of labour
   - Prolonged labour and the fetal head is engaged
   - Attending obstetrician wants to observe the colour of the amniotic fluid

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2. Episiotomy
   It is a surgical incision of the perineum to enlarge the vaginal opening to facilitate childbirth when the condition requires. The indications for episiotomy are:
   - To prevent an uncontrolled tear which may extend to the perineal body, anal sphincter and even anus and rectum
   - Hypertensive or cardiac disease client
   - For instrumental delivery
3. Instrumental delivery
   It may use a vacuum extractor or a pair of forceps to help the baby be born if the second stage of labour is prolonged or the fetus is showing signs of distress

ARM

A toothed forceps or a plastic wand with a small hook will be inserted through the cervix to pierce the amniotic sac for the fluid to flow out slowly.

Episiotomy

1. Episiotomy is performed under local anaesthesia (local anaesthetics are sometimes not needed if the client has epidural analgesia).
2. A mediolateral episiotomy will be made.

Vacuum Extractor

1. A suction cup is applied to the fetal scalp and air is sucked out using a vacuum pump.
2. Once the cup is firmly attached, the doctor will pull on the vacuum extractor while the mother pushes during a contraction.
3. Episiotomy may be necessary.

Forceps

1. An episiotomy will be made.
2. Doctor will place one blade of the forceps on each side of the fetal head. The two blades are then locked together.
3. Doctor will pull while the mother pushes during a contraction.

Possible Risks and Complications

1. Normal Spontaneous Delivery
   - Excessive lochia
   - Vaginal tear and soreness
   - Hemorrhoids
   - Breast soreness and engorgement
   - Difficult urination
   - Laceration of the perineum
   - Fetal hypoxia
   - Weakening of the pelvic floor
   - Placenta failed to be delivered requiring an emergency operation to remove the placenta
   - Heavy bleeding that required immediate treatment and / blood transfusion
   - Although rare, there is an increased chance of uterine rupture in VBAC cases
2. ARM
   - If the fetal head is not close to the cervix, cord prolapse may occur
   - If there is too much amniotic fluid, there is a higher risk of cord prolapse and early placenta separation.
   - If the amniotic sac and the fetal head are too close, small abrasions may appear on the baby's head when performing the procedure.

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3. Episiotomy
   - Increase blood loss
   - Wound pain
   - Wound infection
   - Edema
   - Haematoma
   - Difficult urination and defecation (usually resolve after a few days)
   - Dyspareunia (pain during intercourse)
4. Instrumental Delivery

   Mother:
   - Complications of episiotomy
   - The instrumental delivery may fail and a caesarean section will be necessary
   - Vaginal and genital tract or bladder injury

   Baby:
   - Swelling on the scalp (vacuum extractor) (usually self-limiting)
   - Forceps marks on the face (forceps) (usually self-limiting)
   - The collar bone may break (usually recover spontaneously)
   - Intracranial bleeding (rare)
   - Skull fractures (rare)
   - Facial nerve injury (rare)
   - Brachial plexus nerve injury (rare)

** The risks listed above are in general terms and the possibility of complications is not exhaustive. Please understand that even though all procedures are carried out with utmost professionalism and care, this does not rule out the possibility of complications arising. In the event of complications arised, further operations may be required.

Preparation for NSD

1. The procedure and possible complications will be explained by the doctor.
2. Please change into a surgical gown after removing all belongings including undergarments, dentures, jewellery and contact lenses.
3. Please empty your bladder before labour.

Post-partum Instructions

1. Rest:
   - Adequate rest is essential to speed up the recovery process.
   - Plan the housework and seek help from family members.
2. Personal hygiene:
   - Take a warm bath and avoid catching a cold.
   - Blow dry your hair after shampooing.
   - Clean your body as usual, in this way no need to specially clean the breasts before breastfeeding.
3. Breast engorgement:
   - Usually occurs on the third day after delivery.
   - Painkillers prescribed may be used to relieve pain and fever.
   - Frequent breastfeeding on demand is encouraged to enhance the flow of milk.
   - For non-breastfeeding mothers, stimulation of both breasts is discouraged.
4. Diet:
   - Maintain a well-nourished diet from a variety of foods.
   - To avoid constipation, plenty of fresh fruit, vegetables and water is needed.
   - Avoid any alcohol-based drink, herbal medicine such as Angelica and Ginseng.

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5. Exercise:
   - Optimal physical exercise can help to strengthen the muscles and joints, speed up uterine involution and prevent urinary incontinence.
   - Some light exercise can be started the day after delivery.
6. Lochia:
   - Lochia is vaginal discharge after birth and will last for 2 to 6 weeks.
   - Under normal circumstances, the lochia will change from red color to dull and lighter. The amount will decrease gradually.
7. Menstruation:
   - Menstruation will resume within 4 to 8 weeks after delivery.
   - Amount and quality may vary for the initial 1 to 2 times.
   - Menstruation may be delayed in breastfeeding mothers.
8. Revolution of uterus:
   - Pain can be relieved by an analgesic.
   - Massage of the uterus helps to expel the lochia and fasten revolution of the uterus.
   - In general, 6 to 8 weeks are required for the complete revolution of the uterus.
9. Episiotomy wound (normal spontaneous delivery):
   - Use a shower or peri-bottle to rinse the vulvar area from front to back and pat dry to avoid infection
   - Change maternity pads accordingly.
10. Hair Loss:
    - Prominent hair loss after delivery is due to the shedding of the rapidly growing hair during pregnancy. This phenomenon will improve gradually.
11. Mood swings after delivery:
    - It is due to hormonal changes. The mother may easily get miserable, irritable and have insomnia.
    - Symptoms will subside in a short period of time.
    - Adequate rest, with support from husband and family members, will ease the situation.
    - If the condition persists, postpartum blue may be suspected and referral to a counselor or specialist is required.
12. Post-natal follow up:
    - 1st follow up will be 1 to 2 weeks after delivery.
    - Post-natal body check will be carried out by the attending doctor 6 to 8 weeks later.
    - Normal sexual life can be resumed if recovery is good.
    - Husband is encouraged to participate in thorough family planning.

Advice on Discharge

1. Should there be any enquiries, please consult the attending doctor or call the following hotlines:
   - Baby Friendly Hotline: 2838-7727
   - Department of Health - Breastfeeding Hotline: 3618-7450
2. Any follow-up consultations should be attended as scheduled.

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Should there be any enquiries or concerns, please consult the attending doctor.

Under the professional care of the doctor, you will gradually recover. We wish you all the best during your delivery and recovery.

If you have any questions after reading the entire leaflet, please write them down in the spaces provided in order for the doctor to further follow-up.

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Compiled by Union Hospital Operating Theatre (OT) Governance Committee

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