Parturition, cause the cervix to widen and begin

Nutrition

Parturition, is also calledchildbirth. This is the process of giving birth during labour. Thisoccurs 15 days of planned due date. (MedicineNet. com, 2016).

During the first stage of labour, the cervix becomes thinner (effacement) and stretches (dilation) as the baby’shead descend and engage with the pelvis. This takes 4-8 hours, in in a woman who is having her second or first baby. (NHS. Choice, 2018). The first stage consist of three phases: the LatentPhase, the uterus starts to tighten regularly with the Braxton Hickscontractions, are irregular and do not usually hurt, it occurs atleast every 10 minutes with lasting 20 seconds.

Thecontractions cause the cervix to widen and begin to open, till it reaches 3cmdilatation. The active phase, is from 3cm full cervical dilatation (10cm), contractions becomes more frequent and stronger. The cervix dilate at rate of1cm or hour faster and last between 2-6 hours. And the Transition stage oflabour, is intense and It is characterised by frequent strong contraction occurevery 2-3 minutes. (NHS.

Choice, 2018) The Second stage of labour is from the time of full dilatation of the cervix until the baby is delivered. It consist of 2 initial part, a passive (descent)phase; where the baby’s head moves down through the mother’s vagina. Followedby an active phase, where the motherfeels the desire to push. (NHS. Choice, 2018). The pushing involves contracting the abdominal muscles in time with eachuterine contraction and takes average of 20-40minutes and delivers the baby. During thethird stage of labour, the umbilical cord isclamped and cut by the midwife/doctor. The remains shrinks up in few days to form the belly button.

The sucklingof the nuzzling at the breast by the baby, help gives the body oxytocinhormone. This help contract the womb and push out the placenta and reduces theamount of blood loss. (NHS. Choice, 2018)Birth hormones acts as chemical messengers. These hormones help co-ordinates the process of labour, which is theexpulsion of the foetus from the mother’s uterus. (MedicineNet. com, 2016).

High levelsof progesterone preventuterine contractions while the baby is still developing. Therefore, progesterone is decrease so that labour can occur. If it is inhibited, that means the smooth muscles of the uterus can begin tocontract. This process is initiated by the baby. (MedicineNet.

com, 2016). The rise in stress hormonestriggers a rise in the steroid hormone estriol. It is a form of oestrogen that stops the synthesis ofprogesterone by the placenta and prepares the smooth muscles of the uterusfor labour.

The mother’s pituitary gland secretes oxytocin when the baby isfully developed and ready for labour. This hormone stimulates contractions. (Google. com, 2018).

The baby’s adrenal glands send a signal to start labour. (Google. com, 2018). The baby’s lungs secrete an enzyme when they are fully developed. Thiscauses prostaglandins to be released into the mother’s system. The release ofprostaglandins helps initiate labour and, along with another hormonecalled relaxin, relaxes themuscles of the cervix. This is important because the cervix must be relaxed, ifit is to stretch (or dilate) enough to allow the baby to pass through. (Google.

com, 2018). The body producescalming and pain-relieving hormones called beta-endorphinor catecholamine. This isalso known as the fight or flight hormones. High levelsof this hormone causes the oxytocin level to reduce and cause contractions toslow down. Low levels ofendorphins can cause labour to be excessively painful and difficult to accept. Prolactinis known as the mothering hormone. It increases during labour.

It plays a rolein helping the new-born healthy development, and change to life outside thewomb. Low levels of prolactin may cause Poor transition of the baby at the timeof labour. (Google. com, 2018). During foetalcirculation, Bloodenters the right atrium, the chamber on the upper right side of the heart. Whenthe blood enters the right atrium, most of it flows through the foramen ovaleinto the left atrium. Blood then passes into the left ventricle (lower chamberof the heart) and then to the aorta, (the large artery coming from the heart).

From the aorta, blood is sent to the heart muscle itself in addition to thebrain. (Natalie, 2017). After circulating there, the blood returns to the rightatrium of the heart through the superior vena cava. About two thirds of theblood will pass through the foramen ovale, but the remaining one third will passinto the right ventricle, toward the lungs. (Natalie, 2017)Inthe foetus, the placenta does the work of breathing instead of the lungs. As aresult, only a small amount of the blood continues on to the lungs. Most ofthis blood is bypassed from the lungs through the ductus arteriosus to theaorta.

Most of the circulation to the lower body is supplied by blood passingthrough the ductus arteriosus. (Natalie, 2017). With the first breaths of life, the lungsbegin to expand. As the lungs expand, the alveoli in the lungs are cleared offluid. An increase in the baby’s blood pressure and a significant reduction inthe pulmonary pressures reduces the need for the ductus arteriosus to shuntblood. These changes promote the closure of the shunt. (Natalie, 2017)Thesechanges increase the pressure in the left atrium of the heart, which decreasethe pressure in the right atrium. The shift in pressure stimulates the foramenovale to close.

The closure of the ductus arteriosus becomes ligamentumarteriosum and foramen ovale completes the transition of foetal circulation tonew-born circulation. (Natalie, 2017)Hormonalcontrol of lactations occurs through lactation, this process is under endocrine control. The twomain hormones involved are prolactin and oxytocin. Prolactin is a hormone thatstimulates mammary gland development which stimulates milk production calledlactogenesis, the functional change of the breasts to secrete milk. (Harmsen, 1995)Duringpregnancy, the body prepares for lactation by stimulating the growth anddevelopment of branching lactiferous ducts and alveoli lined withmilk-secreting lactocytes. (Faye, 2010). At the end of the 6 months, themammary glands become fully developed, and the gland cells begin to produce asecretion known as colostrum. (Faye, 2010).

These functions are related to theactions of several hormones that involved prolactin. Following the first two orthree days of childbirth, mammary gland secretion of breast milk sucklingtriggers and Stimulated physical receptors that stimulate the release ofoxytocin from the posterior lobe of the pituitary

gland. Oxytocin causescontraction of the myoepithelial cells in the walls of the lactiferous ducts tosqueeze milk from alveoli and milk is ejected. (Faye, 2010)Galactopoiesis starts around 9 days after birth, itis the maintenance of milk secretion controlled by hormones called Prolactin. It levelsare high at night. The more milk is removed from the breast, is the more prolactin is secreted. (Harmsen, 1995)Colostrum is the first early milk producedsince about 14 weeks of pregnancy.

It is thick, sticky and yellowish and is particularly rich in immunoglobulin, antimicrobial peptides (lactoferrin and lacto peroxidase) and other bioactivemolecule, including growth factors which are important for nutrition, growthand development of newborn infants and also for passive immunity. Colostrum has nutrientprofile highly different from mature milk. It contains macronutrient likeproteins, Carbohydrate, fats and micronutrients like vitamins (A and K) and minerals. (Harmsen, 1995)Milkis produced in the first postpartum days and contains more protein, less fatthan breast milk. Many of the proteins are antibodies that help infant fightbad infections until its own immune system develops. (Stephan, 1990).

Mature milk containswater, fat, carbohydrates, protein, vitamins and minerals, amino acids, enzymes, and white blood cells called macrophages. Milk will change fromcolostrum to mature breast milk, which is more diluted and greater in volume. When breastfeeding isinitiated, breast milk changes from foremilk, high in water andlactose, to hind milk, high in fat and calories. (Harmsen, 1995). Mothers who are either not able to produce milk or haveconditions that prevent them from breastfeeding can access milk

through donorbanks. These facilities collect extra breast milk from lactating mothers andprocess it for distribution to infants in need.

While Bovine colostrum isavailable for human consumption as an over-the-counter supplement in capsuleform. (AFO, 2011).