MULTIPARITY

The number of live births plus stillbirths with gestational age of ≥20 weeks.

△ Risk factor ♀ Female

About Multiparity

Parity is the number of pregnancies carried to viable gestational age. A woman who has given birth two or more times is multiparous and is called a multip. Grand multipara describes the condition of having given birth three or more times. Classifying grand multiparous women as a high-risk group without clear evidence of a consistent association with adverse outcomes can lead to socioeconomic burdens to the mother, family and health systems.

Grand multiparity remains a risk in pregnancy and is associated with an increased prevalence of maternal and neonatal complications (malpresentation, meconium-stained liquor, placenta previa and a low Apgar score used to evaluate newborn’s condition).

Parity does not provide information about miscarriages, abortions, or stillbirths, and the spacing of pregnancies as well as the length of breastfeeding are not taken into account. Also, if women of poor health are unable to bear more children, high-parity women may include only the healthiest individuals. Further, parity is an important modulator of breast cancer risk and age at diagnosis. Multiple last birth was found to be protective against breast cancer.

The relationship between multiparity and contraception should be investigated because the idea of having many children may be associated to vulnerability as its generator or enhancer, since it has a higher incidence in developing and underdeveloped countries, being related to cultural and religious factors.

Symptoms

The World Health Organisation (WHO) defines high parity as five or more pregnancies with gestation periods of ≥20 weeks, and low parity as less than 5 pregnancies with gestation periods of ≥20 weeks. Often, newborn’s birthweight is higher in those who are multiparous compare to primiparous (first pregnancy).

Associated diseases

- adenomyosis
- preeclampsia (a high blood pressure and signs of damage to another organ system during pregnancy)
- metabolic syndrome (a collection of symptoms that can lead to diabetes and heart disease)
- coronary heart disease
- gestational diabetes mellitus
- cervical cancer

Complications

By the time a woman becomes "multiparous", she is old enough to have an increased risk of having other complications such as larger babies, obesity, and diabetes. There is a significant association between parity and pregnancy outcomes (such as obstetric complications, neonatal morbidity, and perinatal death).

Parity and hormonal contraception use are risk factors for cervical cancer. Parity, age, and previous uterine
abruption increase the risk of adenomyosis (the abnormal presence of endometrial tissue within the uterus muscular layer).

**Obesity**

A positive correlation of waist:hip ratio (the ratio of the circumference of the waist to that of the hips) with parity has been reported in many cross-sectional studies. These findings provide important prospective evidence that childbirth contributes to the development of obesity. Childbirth (either primiparous or multiparous) appeared to increase a woman’s risk of developing obesity relatively soon after delivery. Women’s weight tends to increase the most during their first pregnancy compared with subsequent pregnancies. This finding is troubling because most women who become obese subsequent to childbirth remain overweight or obese in the years following the perinatal period.

**Obstetric complications**

While multiparity is associated with precipitate labor, increased risk of hemorrhage (bleeding) and amniotic fluid embolism (the fluid that surrounds the baby enters mother’s bloodstream), grandmultiparity is significantly associated with antenatal anemia (a decreased number of circulating red blood cells; Pic 1), multiple pregnancy, fetal macrosomia (birth-weight over 4,000 g), perinatal mortality, retained placenta (placenta that stays in the womb after childbirth) and primary postpartum hemorrhage (a loss of more than 500 mL or 1,000 mL of blood within the first 24 hours following childbirth).

**Risk factors**

- advanced maternal age
- cigarette smoking
- alcohol intake
- developing countries
- low educational level
- low socioeconomic status
- low physical activity

**Prevention**

Contraceptive discontinuation contributes substantially to unplanned pregnancies, unwanted births, and termination of pregnancies. Awareness of contraceptive methods can decrease the burden of unplanned pregnancies and thus progresses the family planning program.

Among other risk factors, high parity number may be associated with obesity in women. Therefore, interventions to prevent obesity should be targeted at women prior to initiation of childbearing.

**How it can affect fertility**

The biggest risk is showed in high parity women that could by harmful for both mother and her baby. Especially multiparous mothers over 40 are at slightly higher risk of caesarean section compared with younger multiparous mothers. While the uterus wall is incised during caesarean section, it may form scar in the tissue and the scars can damage the lining of the uterus called the endometrium and can lead to uterine rupture.

Women who have had previous pregnancies, especially a large number of closely spaced pregnancies, are at higher risk of placenta praevia in which the placenta is inserted partially or wholly in the lower uterine segment due to uterine damage. Placenta praevia remains a risk factor for various maternal complications. There were higher incidence of postpartum haemorrhage (bleeding) and blood transfusion in women with placenta praevia compared to general population.

**Prognosis**

Prognosis in multiparity women depends on their age and number of pregnancies. Adverse pregnancy outcomes were increased in primigravida of 35 years and older compared to multigravida of the same age.
Besides, outcomes of previous pregnancies give some indication of the likely outcome and degree of risk with the current pregnancy while number of previous pregnancies and deliveries has also an influence the risks associated with the current pregnancy.

Find more about related issues

Diagnoses

Adenomyosis
Medical condition characterized by the presence of ectopic endometrial tissue within the myometrium.
Learn more at: www.fertilitypedia.org/therapy/diag/adenomyosis

Gallery

Pic. 1: Effect of high parity on occurrence of anemia in pregnancy
Results of adjusted analyses with varying definition of the outcome (anaemia-in-pregnancy).

Sources

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