5. Егоров А.А., Дровосеков М.Н., Аронов А.М., Рожнова О.М., Егорова О.П. Сравнительная характеристика материалов, применяемых в стоматологической имплантации. // Бюллетень сибирской медицины. 2014. том 13. № 6. - С. 41-47
6. Шугалей И.В., Гарабаджиу А.В., Илюшин М.А., Судариков А.М. Некоторые аспекты влияния алюминия и его соединений на живые организмы. // Экологическая химия. 2012. № 3 (21). - С. 172-186
7. Пономарев М.И., Лось А.В. Эффективность покрытий на основе вольфрама при обеспечении работоспособности подвижных узлов, изготовленных из титановых сплавов. // Открытые информационные и компьютерные интегрированные технологии. № 63, 2014. - С. 91-96
8. Трофимов В.В., Федчишин О.В., Клименов В.А. Титан, сплавы титана и их применение в стоматологии. // Сибирский медицинский журнал. 2009. № 7. - С. 10-12
9. Geringer J., Forest B., Combrade P. Fretting-corrosion of materials used as orthopaedic implants. // Wear 259 (2005). 943-951
10. Adya N., Alam M., Ravindranath T., Mubeen A., Saluja B. Corrosion in titanium dental implants: literature review. // The Journal of Indian Prosthodontic Society. July 2005. Vol 5. Issue 3. – 126-131
11. Corne P., Cleymand F., De March P., Geringer J. Fretting-corrosion in dental implants. 2016. https://www.researchgate.net/publication/319318030_Fretting-corrosion_in_dental_implants?enrichId=rgreq-fac4b6859c8ff31cda6d5265a853dd8-XXX&enrichSource=Y292ZXJQYWdlOzMxOTMxODAzMDtBUzo1MzIzNjAwMTYxMzgyNDBAMTUwMzkzNTkyNjg5MA%3D%3D&el=1_x_2&_esc=publicationCoverPdf
12. Тополянский П.А. Повышение стойкости в условиях фреттинг-коррозии элементов турбогенераторов путем плазменного напыления защитного покрытия // Коррозия металлов под напряжением и методы защиты. Тезисы докладов. Т. 2. Львов. 1989. - С. 136-137
13. Тополянский П.А., Соснин Н.А. Фреттингостойкие покрытия подшипников качения крупных электрических машин. // Технологии ремонта, восстановления, упрочнения и обновления машин, механизмов, оборудования и металлоконструкций. Материалы 3-й Всероссийской практической конференции-выставки 27-28 марта 2001 г. Санкт-Петербург. Изд. СПбГТУ, 2001. - С. 44-51
14. Смыслов А.М., Селиванов К.С. Повышение долговечности деталей машин в условиях фреттинга. Уфа: Гилем. 2005. - 180 с.
15. Тополянский П.А., Тополянский А.П., Соснин Н.А., Ермаков С.А. Применение международных стандартов для оценки свойств поверхностей подверженных износу. Технология машиностроения, 2010, № 6. - С. 56-60
16. Mouhyi J., Ehrenfest D., Albrektsson T. The peri-implantitis: implant surfaces, microstructure, and physicochemical aspects. // Clin Implant Dent Relat Res. 2012. № 2 (14). - 170-183
17. Yokoyama K., Ichikawa T., Murakami H., Miyamoto Y., Asaoka K. Fracture mechanisms of retrieved titanium screw thread in dental implant. // Biomaterials. 2002. №23. - pp. 2459-2465
18. Eliaz N. Degradation of Implant Materials. 2012. Springer. - 516 p.
19. Соснин Н.А., Ермаков С.А., Тополянский П.А. Плазменные технологии. Санкт-Петербург: Изд-во Политехнического ун-та. 2013. - 406 с.
20. Новиков С.В., Тамазов И.Д., Тополянский П.А., Тополянский А.П. Использование холодной атмосферной плазмы в стоматологии. // Здоровье и образование в 21 веке. 2018, т. 20, № 1. - С. 124-127
21. Васильев М.А., Беда В.И., Гурин П.А. Физиологический отклик на состояние поверхности металлических дентальных имплантатов. Львов: ГалДент, 2010. - 118 с.
22. Decuzzi P., Ferrari M. Modulating cellular adhesion through nanotopography. Biomaterials. 2010. №1 (31). - pp. 173-179

Klycheva O.I., Kovila H.M. Sachini D.

Comparative analysis of the frequency of causes for breech presentation in Sri Lanka and Russia

*Kursk State Medical University
(Russia, Kursk)*

doi: 10.18411/lj-11-2018-191

idsp: ljjournal-11-2018-191

Abstract

A comparative analysis was made of the frequency of causes for breech presentation in Sri Lanka and Russia.

Keywords: breech presentation, breech delivery, causes, predisposing factors.

Breech presentation is defined as a fetus in a longitudinal lie with the buttocks or feet closest to the cervix. This occurs in 3-4% of all deliveries. The percentage of breech deliveries decreases with advancing gestational age from 22-25% of births prior to 28 weeks gestation to 7-15% of births at 32 weeks' gestation to 3-4% of births at term.

Predisposing factors for breech presentation include prematurity, uterine malformations or fibroids, polyhydramnios, placenta previa, fetal abnormalities (eg, CNS malformations, neck masses, aneuploidy), and multiple gestations. Fetal abnormalities are observed in 17% of preterm breech deliveries and in 9% of term breech deliveries.

Perinatal mortality is increased 2- to 4-fold with breech presentation, regardless of the mode of delivery. Deaths are most often associated with malformations, prematurity, and intrauterine fetal demise.

Objective: to study and analyze the frequency of causes for breech presentation in Sri Lanka and Russia.

Causes of breech presentation of the fetus

Prematurity. It is the most common cause of buttocks previa. On the one hand, this is due to the onset of labor before the fetus had time to turn on its head. On the other hand, it has a low mass and a small length of a child, which causes its increased mobility.

Multiple pregnancies leads to breech previa in more than 10% of cases. When not one but several fruits develop in the uterus, the space for their free movement and rotation decreases. In addition, in such situations, fetal hydrophobia and hypotrophy are more often observed.

Repeated delivery. Gluteal presentation is diagnosed in pregnant women who have many births in the anamnesis. In these women, the muscles of the anterior abdominal wall are weakened, there is a certain inconsistency of the myometrium, due to its anatomical and neurotrophic changes.

Violation of the size or shape of the pelvis. With a narrowed pelvis or its abnormal form, fetal mobility is somewhat limited. As a result, by the 36-week term, he still does not occupy the most safe for childbirth position head down.

Organic pathology of reproductive organs. Physiological rotation of the fetus can be hindered by defects in the structure of the uterus (two-horned, saddle-shaped uterus), submucous nodes and other neoplasms in the lower uterine segment, scar after gynecological surgery or operative delivery.

Congenital anomalies of the fetus. Buttock previa is more often detected with hydrocephalus, anencephaly, Down syndrome, and developmental pathologies of the digestive organs and the heart. Usually we are talking about defects, accompanied by an increase in the size of the fetus or its individual parts or a change in their mobility.

Pathology of fetal membranes and placenta. Fixation of the head in the entrance to the uterus can interfere with the presenting placenta. With low water and shortening of the umbilical cord, the child's mobility is limited, and during high water, on the contrary, it is difficult to stay in the correct position due to increased mobility.

Discoordinated labor activity. In such births, myometrial tone is inefficiently redistributed between different parts of the uterus. As a result, the head, being the most dense and large part of the fetus, is repelled from the area of the uterine throat, and the child turns over on the buttocks.

Table 1

Comparative analysis of the frequency of causes for breech presentation in Sri Lanka and Russia

Causes for breech presentation		Sri Lanka (%)	Russia (%)
1	Prematurity	25.0*	20.0
2	Multiple pregnancies	11.0*	10.0
3	Amniotic sheet perpendicular to the placenta	30.0	50.0*

4	Cornual-fundal implantation of the placenta	25.0	30.0*
	Placenta previa	20.0*	14.5
4	Repeated delivery	5.0*	4.0
5	Violation of the size or shape of the pelvis	3.0*	1.5
6	Organic pathology of reproductive organs	26.0*	20.9
7	Congenital anomalies of the fetus	1.0	1.3
	- Hydrocephalus		0.2
	- Anencephaly	0.1	4.5
	- Down syndrome	6.7*	
8	Pathology of fetal membranes	7.0	8.7*
9	Discoordinated labor activity	20.1*	17.4
10	Oligohydramnios	15.0	17.0*
11	Polyhydramnios	20.3*	15.8

The most significant causes for breech presentation in Sri Lanka are placenta previa (20.0%), multiple pregnancies (11.0%), organic pathology of reproductive organs (26.0%), polyhydramnios (20.3%).

The most significant causes for breech presentation in Russia are amniotic sheet perpendicular to the placenta (50.0%), corneal-fundal implantation of the placenta (30.0%), pathology of fetal membranes (8.7%).

A comparative analysis of the frequency of causes for breech presentation in Sri Lanka and Russia showed that a significantly larger percentage of causes pathology of fetal membranes, placenta and amniotic fluids.

1. Conde-Agudelo, A. Planned caesarean section for term breech delivery: RHL commentary / Conde-Agudelo, A. // The WHO Reproductive Health Library. Geneva: World Health Organization. – 2016.
2. Datta, Sanjay Anesthetic and Obstetric Management of High-Risk Pregnancy / Datta, Sanjay // Springer Science & Business Media. ISBN 9780387004433.
3. Deborah Bilder Prenatal, Perinatal, and Neonatal Factors Associated With Autism Spectrum Disorders / Deborah Bilder, Judith Pinborough-Zimmerman, Judith Miller, William McMahon // Pediatrics. – 2009. – Vol. 123(5). – P. 1293–1300.
4. Konar Dc dutta's textbook of obstetrics (7th ed.) / Konar, Hiralal // [S.l.]: Mcgraw-Hill. – 2014. – P. 376.
5. Kotaska, A. Vaginal delivery of breech presentation / Kotaska, A., Menticoglou, S., Gagnon, R., Farine, D. //Journal of Obstetrics and Gynaecology. – 2009. – Vol. 31 (6). P. 557–66.
6. Kotaska, A. Vaginal delivery of breech presentation / Kotaska, A., Menticoglou, S., Gagnon, R., Farine, D. //Journal of Obstetrics and Gynaecology. – 2009. – Vol. 31 (6). P. 567-78.
7. Witkop, CT. Natural history of fetal position during pregnancy and risk of nonvertex delivery / Witkop, CT., Zhang, J. Sun, W., Troendle, J. // Obstet Gynecol. – 2016. – Vol. 11. – P. 875–880.