

August 6, 2019

Keio University Hospital

Extremely Low Birth Weight Baby Weighing 289g at Birth Turns 20 Years Old

—Smallest of the Extremely Low Birth Weight Babies in Japan Turns 20—

A baby girl born at the Keio University Hospital in 1999 weighing 289g at a gestational age of 23 weeks and later discharged from the neonatal ward of its Department of Pediatrics celebrated her 20th birthday in June this year.

At the time of her birth, this girl was the 3rd smallest baby to be born in the world, and she holds the record in Japan for being the smallest baby at birth to turn 20 years of age.

1. The baby girl weighing 289g at birth

Advancements in neonatal medical care have been remarkable. In Japan, it is said that the survival rate of extremely low birth weight babies, babies weighing less than 1000g at birth, is about 90% in recent times. However, this percentage was low until the 1990s. According to *The Tiniest Babies* (Note 1), there are 28 babies in the world to date (as of July 23, 2019) weighing less than 300g at birth that survived and were later discharged. Of these, only 3 babies were discharged before 2000. It can therefore be said that it was 10 times more difficult back then to preserve the life of a baby weighing less than 300g at birth than it is today. The first person born weighing less than 300g to celebrate a 20th birthday was a baby girl born in 1938 in South Tyneside, Tyne and Wear, United Kingdom. She weighed 283g at birth at a gestational age of 34 weeks.

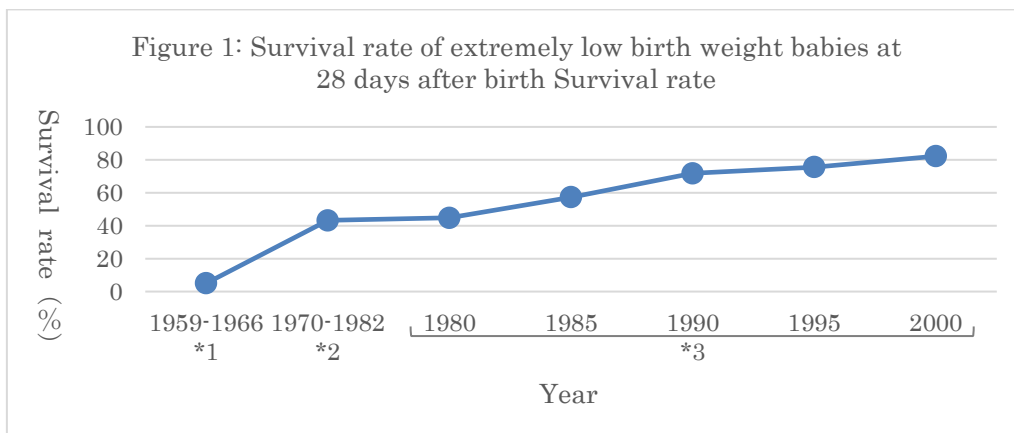
The baby girl we are introducing on this occasion was born at the Keio University Hospital in 1999. She weighed 289g at birth at a gestational age of 23 weeks. She celebrated her 20th birthday in June this year and is currently in employment.

2. Change in the survival rate of extremely low birth weight babies

Extremely low birth weight babies are babies that weigh less than 1000g at birth. Babies with low birth weights are at great risk of contracting respiratory disorders, heart failure, gastrointestinal perforation, serious infectious diseases, etc., as various systems of their body are underdeveloped, making the preservation of their lives difficult. The survival rate in the 1960s was less than 10%, but in the 2000s, this had increased to over 80% (figure 1).

There are many factors that have led to this rise in the survival rate. In the case of Japan, it is thought that the establishment of perinatal medical centers, development of a care system for the

mother’s body during pregnancy, advancements in neonatal intensive care units (NICU) and medical technology, provision of financial assistance toward medical expenses, and the dedication and commitment of healthcare professionals played particularly significant roles.



*1, *2

Baillieres Clin Obstet Gynaecol. 1993 Sep;7(3):611-31.

Outcome of infants born preterm, with special emphasis on extremely low birthweight infants. Nishida H. (Survival rate of babies born in the corresponding periods.)

*3 Journal of the Japan Pediatric Society Vol. 106, No. 4, p. 603-613

Current state of high-risk neonatal care at major medical facilities in Japan

3. Comments from a family member and the individual

• Comments from the mother

“Although she was born a very small baby, seeing her blood flowing when she went in for tests and feeling her warmth when I held her for the first time, I was relieved that she had really been born into this world alive. We still keep in touch with the nurses who took care of her over those first few months, and we celebrated her 20th birthday with them. My heart was filled with joy on her birthday. I kept thinking to myself that she has lived for 20 years. I’m already looking forward to seeing her in her kimono at the coming-of-age ceremony.”

• Comments from the individual

“I have been blessed with great friends and have enjoyed life over the past 20 years. I happily went to school, and for the 3 years of senior high, I was a member of the girls’ basketball team for which I trained hard every day. This is my second year in employment, and now, I’m doing my best attending computer classes twice a week. I’m grateful to my parents for bringing me into this world and for everything they did to raise me.”



Photo 1: After birth (in intensive care)



Photo 2: November 2018 (trip to Kyoto)

[Reference]

(1) Babies weighing less than 300g at birth according to The Tiniest Babies (*1), listed by year of birth.

	Year of birth	Country of birth	Weight at birth	Gestational age
1	1938	United Kingdom	283g	34 weeks
2	1989	US	280g	26 weeks
3	1999	Japan (Keio University)	289g	23 weeks
4	2000	US	290g	25 weeks
5	2001	Germany	290g	23 weeks
6	2002	Italy	285g	27 weeks
7	2004	US	260g	25 weeks
8	2005	Germany	270g	25 weeks
9	2006	US	284g	21 weeks
10	2006	Japan (Keio University)	265g	25 weeks

(all baby girls)

(2) About the Keio University School of Medicine Department of Pediatrics

The Keio University School of Medicine Department of Pediatrics is a core training facility for the perinatal and neonatal medicine specialist system of the Japan Society of Perinatal and Neonatal Medicine. Its neonatal ward, which consists of the Neonatal Intensive Care Unit (NICU) with 9 beds and Growing Care Unit (GCU) with 18 beds, is mid-sized in Tokyo. However, it has a track record of delivering and discharging in good health a baby girl weighing 289g at a gestational age of 23 weeks in 1999 (whom this article is about), another baby girl weighing 265g at a gestational age of 25 weeks in 2016 (the second smallest baby in the world at the time of birth), and a 268g baby boy at a gestational age of 24 weeks (the smallest baby boy to be born in the world at the time of birth).

[Note]

(Note 1) The Tiniest Babies: A database maintained by the University of Iowa. It collects data concerning tiny babies worldwide, which are registered by their primary care physicians.
<https://webapps1.healthcare.uiowa.edu/TiniestBabies/index.aspx>

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