



Preface : Intraventricular Hemorrhage and Posthemorrhagic Hydrocephalus in Preterm Infants

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Since 2015, the Korean Society for Pediatric Neurosurgery (KSPN) has published an official journal known as the *Pediatric Issue* as a supplement to the *Journal of Korean Neurosurgical Society (JKNS)*, which is the official journal of the Korean Neurosurgical Society (KNS)¹⁾. The *Pediatric Issue* has made a significant contribution to the enhancement of the academic level of the *JKNS*, as well as the field of pediatric neurosurgery, by covering a wide range of topics from 2015 to 2022, including the following : Moyamoya disease (edited by Professor Kyu-Chang Wang and Seung-Ki Kim, 2015), craniosynostosis (invited editor : Professor Joon-Ki Kang, 2016), the era of neuroendoscopy (invited editor : Professor Joong-Uhn Choi, 2017), pediatric malignant brain cancers in the molecular era (invited editor : Professor James T. Rutka, 2018), pediatric epilepsy surgery (invited editor : Professor Byung-Kyu Cho, 2019), changing concepts in spinal dysraphism during the last two decades (invited editor : Professor Dachling Pang, 2020), secondary neurulation : the current central topic in spinal dysraphism (invited editor : Professor Kyu-Chang Wang, 2021), and pediatric neurotrauma and child abuse (edited by Professor Seung-Ki Kim and Chae-Yong Kim, 2022). The topic

of the 2023 *JKNS Pediatric Issue* is 'Intraventricular hemorrhage (IVH) and posthemorrhagic hydrocephalus (PHH) in preterm infants', which was organized by the issue's invited editor, Professor Young-Soo Park, a world-famous pioneer in the field (Fig. 1).

Professor Young-Soo Park was born in Japan in 1964, but he is a third-generation Korean living in Japan. He graduated from Nara Medical University in 1990 and started his career as a neurosurgeon the same year. He returned to his alma mater, Nara Medical College, Department of Neurosurgery in 2002 after a long stint at a university-related hospital, where he specialized in pediatric neurosurgery.

From 2006 to 2007, he studied under Professor Concezio Di Rocco (editor-in-chief, Child's Nervous System) at the Division of Pediatric Neurosurgery, Department of Neurosurgery, Catholic University Medical School, Policlinico Gemelli, Rome, Italy. He also received short-term training at Seoul National University Children's Hospital.

He developed a fibrinolysis treatment with intraventricular administration of urokinase for extremely-low-birth-weight infants with hydrocephalus after IVH and reported excellent

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Fig. 1. Invited issue editor, Professor Young-Soo Park; taken at the International Society for Pediatric Neurosurgery held in Singapore in 2022.

treatment results at several international conferences (International Society for Pediatric Neurosurgery [ISPN] 2010 Jeju, World Federation of Neurosurgical Societies [WFNS] 2013 Seoul, European Society for Pediatric Neurosurgery [ESPN] 2014 Rome, ISPN 2018 Tel Aviv, Asian-Australasian Society for Pediatric Neurosurgery [AASPN] 2019 Incheon, ISPN 2021, etc.). Because of these achievements, he received great attention from experts in the field. Another of Professor Park's specialties is infantile severe head trauma, and it is not an exaggeration to say that he has abundant knowledge on abusive head trauma and is an authority on the subject in Japan. Many neurosurgeons may have read the paper 'Complex Pathophysiology of Abusive Head Trauma with Poor Neurological Outcomes in Infants', published in *JKNS* in 2022.

Not limited to pediatric neurosurgery, he is also actively engaged in activities to maintain and develop relationships between Korean and Japanese neurosurgery societies in other fields, and has much experience in giving lectures at various academic conferences in Korea.

Advances in prenatal diagnosis and neonatal intensive care have improved the survival rate of preterm infants with IVH and PHH. However, proper management and effort to reduce long-term neurodevelopmental disability have become more necessary. The articles of this *Pediatric Issue* (IVH and PHH in preterm infants) will undoubtedly provide readers with current concepts and future management guidelines for preterm infants with IVH and PHH. Leading clinicians in the field from Japan, Taiwan, and Korea contributed ten articles,

and world-class scholars participated in the writing of this *Pediatric Issue*.

Dr. Pei-Chen Tsao from Taiwan reviewed the pathogenesis of preterm infantile IVH and its prevention, and Dr. Shunsuke Ichi from Japan summarized the clinical features and general management of preterm infants with IVH. Dr. Sunkyong You (Korea) summarized the radiological features and focused on ultrasonography and magnetic resonance imaging. For the treatment of IVH and PHH in preterm infants, Dr. Young-Soo Park, one of the leading pediatric neurosurgeons in Japan and the invited editor, reviewed fibrinolytic (thrombolytic) therapy for preterm infants with PHH. Dr. Kyu Won Sim (Korea) summarized temporary surgical management, including external ventricular drainage and tapping. Dr. Atsuko Harada from Japan reviewed permanent surgical management, and Dr. Jae Woo Jung (Korea) evaluated novel treatments such as surgical lavage and novel drugs. Dr. Dong Wook Na (Korea) summarized the long-term effects of IVH on preterm infants and rehabilitation for patients. Dr. Sang Dae Kim (Korea) summarized his institutional experience regarding morbidity and mortality trends in preterm infants with severe IVH born at less than 32 weeks gestation.

We deeply appreciate the brilliant minds from Japan, Taiwan, and Korea, who actively participated in developing the 2023 *Pediatric Issue*. Through this *Pediatric Issue*, we hope that many doctors who face and treat preterm infants will acquire basic and up-to-date knowledge about IVH and PHH in preterm infants. We also hope that these small efforts will help improve the prognosis of preterm infants with IVH and PHH.

AUTHORS' DECLARATION

Conflicts of interest

No other potential conflict of interest relevant to this article was reported.

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Reference

1. Kim SK, Wang KC : Preface to pediatric issue. **J Korean Neurosurg Soc** 57 : 389, 2015