

INTISARI

Latar belakang. Kelahiran bayi dengan berat badan lahir rendah (BBLR), prematuritas dan kecil masa kehamilan di Indonesia memiliki insidensi yang masih tinggi. Angka morbiditas dan mortalitas yang tinggi juga dijumpai pada bayi bayi prematur. Kelahiran prematur berhubungan dengan berbagai derajat kerusakan pada parenkim otak dan gangguan neurosensoris maupun neurodevelopmental. Gangguan neurodevelopmental yang dapat terjadi pada bayi prematur adalah *cerebral palsy* (CP), gangguan penglihatan, gangguan pendengaran, gangguan perilaku (neurobehaviour) seperti autism dan ADHD (*attention deficit hyperactive disorder*), dan gangguan kognisi.

Presentasi kasus. Seorang bayi lahir dari ibu berusia 34 tahun G1P0A0 secara spontan saat usia kehamilan 29+5minggu karena ibu memiliki riwayat *preterm partus rupture of membrane* selama 2 hari. Saat lahir bayi tidak langsung menangis dan diberikan resusitasi sampai dengan pemberian ventilasi tekanan positif sebanyak 2 siklus, Apgar Skor saat itu 4/7/9, kemudian pasien diberikan oksigen menggunakan CPAP FiO₂ 100%. Berat badan lahir 1190 gram, panjang badan 49,5 cm. Bayi tersebut menjalani perawatan di NICU level 3 dan mendapatkan bantuan oksigenasi dengan mesin ventilator. Bayi juga mendapatkan terapi surfaktan 1 karena saat itu didapatkan HMD (*hyaline membrane disease*) grade 1. Pasien mengalami sepsis sejak usia 5 hari dengan terapi antibiotik. Pada bulan kedua perawatan di NICU pasien mengalami *bronchopulmonary dysplasia* (BPD). Setelah itu anak rutin kontrol ke Poliklinik Anak RSUP Dr Sardjito untuk mengevaluasi kelainan yang ada saat lahir termasuk fungsi pendengaran dan penglihatan. Saat pasien berusia 1 tahun di dapatkan tetraparese spastik GMFCS 1 dan belum bisa berjalan. Pada pemeriksaan Denver II dan CAT CLAMS saat itu menunjukkan hasil ‘suspek’, yang mengindikasikan adanya gangguan tumbuh kembang. Orang tua kemudian melakukan stimulasi dan fisioterapi rutin selama satu tahun. Setiap dua kali dalam seminggu pasien dibawa ke fisioterapis untuk dilakukan stimulasi dan fisioterapi, selain itu ibu pasien juga belajar langsung bagaimana teknik dan cara stimulasi yang dilakukan oleh fisioterapis tersebut. Teknik yang rutin dilakukan oleh ibu saat di rumah antara lain melakukan gerakan stretching di sendi-sendi, melatih berjalan dengan leg brace, dan mengambil mutiara kecil menggunakan jempitan jari. Pasien kemudian dapat berjalan dan berlari pada usia 2 tahun walaupun masih beberapa kali terjatuh karena kekuatan otot nya tidak maksimal. Evaluasi CT Scan menunjukkan adanya atrofi cerebri dan pasien kemudian didiagnosis sebagai CP GMFCS 1.

Kesimpulan. Perkembangan kognitif, kemampuan motorik dan sosial pada bayi prematur akan mengalami keterlambatan. Perkembangan motorik pasien BBLSR juga memiliki risiko mengalami keterlambatan. Stimulasi yang baik bisa memperbaiki kemampuan motorik kasar maupun halus, selain itu monitoring ketat juga diperlukan untuk melihat perkembangan kemampuan motorik dan ketahanan fisik.

Kata kunci. Tetraparese spastik, Berat Badan Lahir Sangat Rendah, Prematur

ABSTRACT

Background. The incidence of low birth weight (LBW), prematurity and small for gestational age in Indonesia is still high. High morbidity and mortality rates are also found in preterm infants. Preterm birth is associated with various degrees of damage to the brain parenchyma and neurosensory and neurodevelopmental disorders. Neurodevelopmental disorders that can occur in premature infants are cerebral palsy (CP), visual impairment, hearing impairment, neurobehavioural disorders such as autism and ADHD (attention deficit hyperactive disorder), and impaired cognition.

Case presentation. A baby was born to a 34-year-old mother G1P0A0 spontaneously at 29+5 weeks gestation because the mother had a history of preterm partus rupture of membrane for 2 days. At birth the baby did not cry immediately and was given resuscitation until giving positive pressure ventilation for 2 cycles, Apgar Score at that time 4/7/9, then the patient was given oxygen using CPAP FiO₂ 100%. Birth weight 1190 grams, body length 49.5 cm. The baby underwent treatment in NICU level 3 and received oxygenation assistance with a ventilator machine. The baby also received surfactant therapy 1 because at that time HMD (hyaline membrane disease) grade 1 was found. The patient developed sepsis since 5 days of age with antibiotic therapy. In the second month of treatment in the NICU, the patient developed bronchopulmonary dysplasia (BPD). After that the child was routinely controlled at the Pediatric Polyclinic of Dr. Sardjito Hospital to evaluate abnormalities that existed at birth including hearing and vision functions. When the patient was 1 year old, he was found to have GMFCS 1 spastic tetraparesis and could not walk. The Denver II and CAT CLAMS examinations at that time showed 'suspected' results, indicating a developmental disorder. The parents then conducted routine stimulation and physiotherapy for one year. Every two times a week the patient was brought to the physiotherapist for stimulation and physiotherapy, besides that the patient's mother also learned directly how the techniques and ways of stimulation carried out by the physiotherapist. Techniques that are routinely carried out by the mother at home include stretching movements in the joints, practicing walking with a leg brace, and picking up small pearls using a finger pinch. The patient was then able to walk and run at the age of 2 years although he still fell several times due to his muscle strength not being maximized. CT scan evaluation showed cerebral atrophy and the patient was diagnosed as CP GMFCS 1.

Conclusion. Cognitive development, motor and social skills in premature infants will be delayed. The motor development of LBW patients is also at risk of being delayed. Good stimulation can improve gross and fine motor skills, besides that close monitoring is also needed to see the development of motor skills and physical endurance.

Keywords. *Spastic tetraparese, Very Low Birth Weight, Premature*