Perbandingan Penggunaan Kurva Fenton dan Kurva INTERGROWTH-21st dalam Pemantauan Pertumbuhan Bayi Prematur di Rumah Sakit Umum Pusat Nasional Dr. Cipto Mangunkusumo = Comparison of the Fenton Curve and the INTERGROWTH-21st Curve in Monitoring the Growth of Premature Infants at Cipto Mangunkusumo Hospital

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Abstrak

Latar belakang: Sekitar 10,6% persalinan di seluruh dunia adalah persalinan prematur. Pemantauan pertumbuhan yang adekuat dalam perawatan bayi prematur penting untuk mencegah kelebihan atau kekurangan asupan nutrisi, yang saat ini dapat dilakukan menggunakan kurva Fenton 2013 atau kurva INTERGROWTH-21st. Karena perbedaan metodologi dan populasi yang terlibat pada proses penyusunan kedua kurva, hasil yang didapatkan dapat berbeda. Oleh karena itu, dibutuhkan penelitian untuk membandingkan penggunaan kedua kurva tersebut pada populasi bayi prematur di Indonesia.
Metode: Penelitian kohort prospektif ini melibatkan subjek bayi prematur dengan usia gestasi lahir 28–36 minggu di RSUPN Dr. Cipto Mangunkusumo selama Juni–September 2022. Seluruh subjek dipantau dengan kurva Fenton dan kurva INTERGROWTH-21st selama 2 minggu, dan dievaluasi perbedaan persentil berat badan, panjang badan, dan lingkar kepala, proporsi SGA, AGA, dan LGA, dan perbandingan proporsi subjek dengan EUGR pada usia 2 minggu.
Hasil: Dari 131 subjek yang memenuhi kriteria inklusi, didapatkan persentil berat badan, panjang badan, dan lingkar kepala lebih tinggi secara bermakna pada kurva INTERGROWTH-21st dibandingkan kurva Fenton. Sebanyak 17 dari 36 (47,2%) subjek yang tergolong SGA berdasarkan kurva Fenton pada saat lahir didapatkan lebih sesuai dengan AGA berdasarkan kurva INTERGROWTH-21st, dan 30 dari 89 (33,7%) subjek yang tergolong AGA berdasarkan kurva Fenton saat lahir didapatkan lebih sesuai dengan LGA berdasarkan kurva INTERGROWTH-21st. Subjek yang lahir sesuai AGA tetapi mengalami EUGR pada usia 2 minggu didapatkan lebih tinggi secara bermakna pada kurva Fenton (14,7%) dibandingkan kurva INTERGROWTH-21st (8,9%, p <0,001).
Kesimpulan: Insidens SGA didapatkan lebih tinggi pada kurva Fenton dibandingkan INTERGROWTH-21st, sedangkan LGA lebih tinggi pada kurva INTERGROWTH-21st dibandingkan kurva Fenton. Pada usia kronologis 2 minggu, insidens subjek dengan EUGR lebih tinggi secara bermakna dengan kurva Fenton dibandingkan kurva INTERGROWTH-21st.
.....Background: Approximately 10.6% of all deliveries worldwide are premature. Adequate growth monitoring is essential in the care of preterm infants to prevent excessive or undernutrition, which can currently be performed using the Fenton 2013 curve or the INTERGROWTH-21st curve. Due to differences in the methods and study population involved in the development of these two curves, there is a high possibility of obtaining different results. Therefore, a study is warranted to compare the two curves in the Indonesian premature infant population.
Methods: This prospective cohort study involves premature neonates with gestational age of 28–36 weeks born in Cipto Mangunkusumo Hospital during June–September 2022. The growth of all subjects were plotted on the Fenton and INTERGROWTH-21st curves for 2 weeks, and differences in weight, height, and

head circumference percentiles, proportion of SGA, AGA, and LGA, and proportion of infants with weight below the 10th percentile between the two curves at 2 weeks were also compared.
Results: Among 131 subjects meeting the inclusion criteria, the weight, height, and head circumference percentiles were significantly higher on the INTERGROWTH-21st curve compared to the Fenton curve. As many as 17 of 36 (47.2%) subjects classified as SGA on the Fenton curve were AGA on the INTERGROWTH-21st curve, and 30 of 89 (33.7%) subjects classified as AGA on the Fenton curve were LGA on the INTERGROWTH-21st curve. The prevalence of infants without SGA at birth but classified as EUGR at 2 weeks was significantly higher on the Fenton curve (14.7%) than the INTERGROWTH-21st curve (8.9%, $p < 0.001$).
Conclusion: The incidence of SGA was significantly higher with the Fenton curve, whereas LGA was significantly higher with the INTERGROWTH-21st curve. At 2 weeks, the proportion of subjects with EUGR was significantly higher with the Fenton curve compared to the INTERGROWTH-21st curve.