Efek Implementasi Pemberian Nutrisi Berdasarkan Target Berat Badan Menurut Kurva Intergrowth-21st dan Kurva Fenton terhadap Laju Pertumbuhan Bayi Prematur: Uji Klinis Acak Tersamar Ganda = The Effect of Nutrition Implementation Based on Targeted Body Weight from Intergrowth-21st and Fenton Curve to The Growth Velocity of Premature Babies: a Randomized Clinical Trial.

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Abstrak

Latar belakang: Asuhan nutrisi optimal untuk bayi prematur bertujuan mengoptimalkan tumbuh kembang dan peningkatkan kualitas hidup bayi prematur. Asuhan nutrisi berupa penilaian masalah nutrisi, menentukan kebutuhan nutrisi, dan pemantauan pertumbuhan membutuhkan kurva pertumbuhan. Saat ini tidak ada kurva pertumbuhan standar untuk bayi prematur. Tujuan: Membandingkan laju pertumbuhan setiap minggu hingga maksimal usia 37 minggu pada bayi prematur yang diberikan nutrisi berdasarkan berat badan ideal menurut kurva Intergrowth-21st dan kurva Fenton, serta mengetahui hubungan antara sepsis, respiratory distress syndrome, riwayat hambatan laju pertumbuhan intrauterin dengan laju pertumbuhan berat badan . Metode: Pnelitian ini adalah uji klinis ajak tersamar ganda pada 93 bayi prematur usia gestasi 33-36 minggu. Perhitungan kebutuhan nutrisi dan pemantauan asupan dilakukan setiap hari serta pemantauan antropometri berupa berat badan, panjang badan, dan lingkar kepala dilakukan minimal satu kali dalam seminggu. Analisis uji-t dilakukan pada sebaran data normal Hasil: Pada bayi prematur yang diberikan nutrisi berdasarkan berat badan ideal menurut kurva Intergrowth-21st dan kurva Fenton tidak berbeda bermakna dalam hal laju kenaikan berat badan, panjang badan, dan lingkar kepala setiap minggu hingga maksimal usia 37 minggu. Pemberian nutrisi berdasarkan berat badan ideal menurut kurva Intergrowth-21st dibandingkan menggunakan kurva Fenton memberikan hasil lebih banyak bayi prematur yang mencapai berat badan lahir dalam waktu kurang dari 7 hari (33% vs 19%) dan lebih banyak bayi prematur yang tumbuh liniear sesuai dengan trajektori pertumbuhan yang harus dicapai, dengan indeks berat badan 39% vs 20%, panjang badan 55% vs 36%, dan lingkar kepala 59% vs 48%. Riwayat hambatan pertumbuhan intrauterin memiliki hubungan bermakna dengan laju pertumbuhan berat badan pada pasien yang mendapatkan nutrisi berdasarkan berat badan ideal menurut kurva Intergrowth-21st(p 0,003, IK 95% 2,326-10,239) Simpulan: Penggunaan kurva Intergrowth-21st lebih baik dibandingkan kurva Fenton dalam menentukan kebutuhan kalori dan pemantauan pertumbuhan bayi prematur, sehingga mencageha terjadinya hambatan laju pertumbuhan.

.....Background: Nutrition implementation in premature babies goals are to optimize growth development and increase life quality. Nutritional implementation program including nutritional assessment, determine nutritional necessity or nutritional therapy, and monitor of premature babies' growth with standardized growth curve. Until recently, there is no standardize growth curve for premature baby. Objective: To compare growth velocity every week until maximum 37 weeks corrected age in premature infants who has been given nutritional implementation based on their ideal weight using Intergrowth-21 curve or Fenton curve. And, to correlate growth velocity and factors such as sepsis, respiratory distress syndrome, and intrauterine growth retardation. Methods: This is randomized double blinded clinical trial on 93 premature

babies with gestational age range within 33-36 weeks. Daily nutritional intake and monitoring intake toleration were done. Anthropometric monitoring data were taken minimum every week. T-test analysis was used on normal data distribution. Results: There are no significant difference in weekly growth velocity (body weight, length, head circumference) in premature babies until 37 weeks corrected age who is given nutritional intake based on ideal body weight of Intergrowth-21st curve compare to Fenton curve. Intergrowth-21st curve shows more premature babies achieving babies' birth weight in less than 7 days (33% vs 19%) and more premature babies have linier growth according to their trajectory growth goals, with body weight index 39% vs 20%, body length 55% vs 36%, and head circumference 59% vs 48%. Intra uterine growth retardation and growth velocity has significant correlation in patients received nutrition implementation based on targeted ideal body weight according to Intergrowth-21st curve (p 0,003, IK 95% 2,326-10,239). Conclusion: Intergrowth 21st curve has better result in determining nutritional necessity and monitoring growth of premature babies compare to Fenton curve in order to prevent slower growth velocity in premature babies.