

ABSTRACT

Background: More than 10% of babies were born preterm with the risk of feeding problem occurs in 24-45% of normal infants, increased 80% with developmental problems. Oral physiotherapy is one of the interventions in the management of oral feeding problems in preterm infants.

Objective: To determine the effect of oral physiotherapy on oral feeding skills in preterm infants.

Methods: A retrospective cohort study from August 2019 to September 2020. Study samples are infants 32-34 weeks gestational age with feeding problems. An independent t-test analysis was performed to determine the differences between the oral physiotherapy and non-physiotherapy groups in increasing body weight, postmenstrual age full oral feeding, and postmenstrual age on hospital discharge. simple and multiple regression analyses were performed to determine the effects of confounding factors on the outcome.

Results: Sixty-four infants met the inclusion criteria, with 24 receiving oral physiotherapy. Oral physiotherapy has a significant effect on weight gain (6.60 ± 3.18 vs 4.47 ± 3.85) gram/kg BW/day ($p = 0.026$). PMA full oral feeding and PMA at discharge between the two groups did not show a significant difference (36.45 ± 1.42 vs 35.93 ± 1.27) weeks ($p = 0.202$); (36.78 ± 1.49 vs 36.53 ± 1.40) weeks ($p = 0.501$)). In linear regression test, oral physiotherapy is one of the factors that affecting weight gain ($R = 0.279$, $p = 0.026$), besides birth weight, gestational age, and use of oxygen with the strongest variable relationship birth weight ($p = 0.001$). The strongest factor affecting PMA full oral feeding was with PMA of first oral feeding ($p = 0.001$). The strongest Factors affecting the time for PMA hospital discharge were PMA first oral feeding ($p = 0.001$) and sepsis ($p = 0.044$).

Conclusion: Oral physiotherapy improves the weight gain of preterm infants, but cannot improve the time of PMA full oral feeding and hospital discharge.

Keywords: oral physiotherapy, feeding skills, oral feeding, preterm infants, weight gain.

INTISARI

Latar belakang: Lebih dari 10% bayi dilahirkan kurang bulan dengan risiko kesulitan minum per oral pada 24-45% bayi normal, meningkat 80% pada bayi dengan gangguan perkembangan. Fisioterapi oral merupakan salah satu pengelolaan masalah minum per oral bayi kurang bulan.

Tujuan: Mengetahui pengaruh fisioterapi oral terhadap kemampuan minum per oral bayi kurang bulan.

Metode: Penelitian kohort retrospektif antara Agustus 2019 sampai September 2020. Sampel bayi umur kehamilan 32-34 minggu dengan permasalahan minum per oral. Analisis *independent t-test* untuk mengetahui perbedaan antara kelompok fisioterapi dan tanpa fisioterapi dalam peningkatan berat badan, PMA minum per oral mandiri, dan PMA pulang dari rumah sakit. Analisis regresi sederhana dan berganda dilakukan untuk mengetahui pengaruh faktor perancu penelitian.

Hasil: Enam puluh empat bayi memenuhi kriteria inklusi, 24 bayi mendapatkan fisioterapi oral, 40 bayi tanpa fisioterapi oral. Fisioterapi oral berpengaruh terhadap kenaikan berat badan secara signifikan (6.60 ± 3.18 vs 4.47 ± 3.85) gram/kgBB/hari ($p = 0,026$). Pengaruh fisioterapi oral terhadap PMA minum per oral mandiri dan PMA saat pasien dipulangkan rumah sakit tidak menunjukkan perbedaan signifikan (36.45 ± 1.42 vs 35.93 ± 1.27) minggu ($p = 0,202$); (36.78 ± 1.49 vs 36.53 ± 1.40) minggu ($p = 0,501$)). Pada uji regresi linier sederhana, fisioterapi oral berpengaruh terhadap kenaikan berat badan, di samping berat lahir, umur kehamilan dan penggunaan oksigen. Faktor yang berpengaruh paling kuat terhadap kenaikan berat badan adalah berat lahir ($p = 0,001$). Faktor terkuat yang mempengaruhi PMA minum per oral mandiri PMA minum per oral pertama ($p = 0,001$). Faktor terkuat yang berpengaruh terhadap waktu PMA pulang adalah hubungannya PMA minum per oral pertama ($p = 0,001$) dan sepsis ($p = 0,044$).

Simpulan: Fisioterapi oral memperbaiki peningkatan berat badan bayi kurang bulan, namun tidak berpengaruh terhadap waktu PMA minum per oral mandiri dan PMA pulang rumah sakit.

Kata Kunci: Fisioterapi oral, kemampuan minum per oral, minum per oral, bayi kurang bulan, peningkatan berat badan