

FAKTOR RISIKO HIPERTENSI PULMONAL PADA BAYI DENGAN *BRONCHOPULMONARY DYSPLASIA*

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Intisari

Latar belakang. *Bronchopulmonary dysplasia* (BPD) merupakan salah satu penyakit kronis yang paling banyak ditemukan pada bayi prematur. Dampak yang paling sering menimbulkan morbiditas dan mortalitas pada bayi adalah hipertensi pulmonal (HP).

Tujuan. Mengetahui faktor risiko terjadinya HP pada bayi-bayi dengan BPD

Metode penelitian. Penelitian kasus-kontrol, pada semua bayi yang didiagnosis BPD di Instalasi Maternal Perinatal RSUP Dr. Sardjito dan dirawat tahun 2015-2020. Semua bayi dilakukan pemeriksaan ekokardiografi untuk mendeteksi HP, baik pada masa perawatan atau setelah rawat jalan. Kelompok kasus adalah BPD dengan HP, kelompok kontrol adalah BPD tanpa HP.

Hasil. Seratus bayi didiagnosis BPD selama periode 2015-2020 (1,18%), 42 bayi (berat lahir median 1195 g; umur kehamilan $31,3 \pm 4,2$ minggu) dilakukan pemeriksaan ekokardiografi dimasukkan dalam penelitian. Tiga belas bayi didiagnosis HP (30,95%), 4 (9,5%) terdeteksi sebagai HP dini dan 9 (21,4%) HP lambat, sisanya 29 (69,05%) tanpa HP. Proporsi laki-laki (46,2% vs 48,3%), median berat lahir (1200 g vs 1100 g), umur kehamilan ($31,7 \pm 4,6$ minggu vs $31,1 \pm 4,1$ minggu) dan pemberian surfaktan (15,4% vs 24,1%) tidak berbeda bermakna antara kelompok BPD dengan HP dan tanpa HP. Morbiditas (kelainan kongenital, infeksi, kelainan jantung, sepsis) tidak berbeda bermakna di kedua kelompok. Faktor risiko terjadinya HP pada BPD adalah oligohidramnion (OR 2,33; CI95% 0,1-40,5), KMK (OR 1,7; CI95% 0,4-7,5), dan terapi oksigen \geq (OR 1,5; CI95% 0,1-16,3), namun secara statistik tidak bermakna. Hasil logistik regresi ventilasi mekanik > 10 hari berisiko terjadi HP (OR 1,6; CI95% 0,4-6,2), namun secara statistik tidak bermakna. Angka kematian pada BPD tanpa HP lebih tinggi dibanding BPD dengan HP (24,14% vs 15,4%), namun tidak berbeda bermakna secara statistik.

Simpulan. BPD masih sangat jarang di RSUP Dr. Sardjito. KMK, oligohidramnion, ventilasi mekanik dan terapi oksigen bukan faktor risiko terjadinya HP pada bayi dengan BPD.

Kata kunci: BPD, hipertensi pulmonal, faktor risiko

RISK FATORS OF PULMONARY HYPERTENSION IN INFANTS WITH BRONCHOPULMONARY DYSPLASIA

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Abstract

Background. Pulmonary hypertension (PH) is associated with bronchopulmonary dysplasia (BPD) in premature infants and contributes to morbidity and mortality.

Objective. To investigate the risk factors for PH in infant with BPD

Methods. A case-control study was conducted to all BPD infants in Maternal Perinatal Ward Dr. Sardjito General Hospital in 2015-2020. All BPD infants were evaluated for PH with echocardiography during hospitalization, or after discharge. All infants without any result of echocardiography were excluded. All infant with PH detected are include in case group, and those without PH were included in control group.

Results. One hundreds BPD infants were identified during 2015-2020 (1.18%), 42 infants were performed echocardiography (median birth weight 1195 g; gestational age 31.3 ± 4.2 weeks) and included in this study. Thirteen (30.95%) were diagnosed with PH, 4 (9.5%) by initial echocardiography (early PH), 9 (21.4%) who were identified later (late PH), while the remaining 29 infants had no PH (69.05%). Male sex (46.2% vs 48.3%), median birth weight (1200 g vs 1100 g), and gestational age (31.7 ± 4.6 weeks vs 31.1 ± 4.1 weeks) were not significantly different among BPD infants with PH and no PH, respectively. Morbidity (congenital anomaly, infection, congenital heart disease, sepsis). Oligohydramnion (OR 2.33; CI95% 0.1-40.5), small for gestational age (SGH) (OR 1,7; CI95% 0,4-7,5) and oxygen supplementation (OR 1.5; CI95% 0.1-16.3) were found to be risk factors for PH in BPD infants, but not statistically significance. Mortality rate of BPD infants without PH is higher than BPD infants with PH (24.14% vs 15.4%, p 0.523), not statistically difference.

Conclusions. BPD is very rare disease. SGH, oligohydramnion, mechanical ventilation and oxygen therapy were not associated with PH among infants with BPD.

Keywords: BPD, pulmonary hypertension, risk factor