

Perbandingan Ultrasonografi dan Foto Polos Abdomen sebagai Alat Bantu Diagnostik pada Neonatus Sangat Prematur Tersangka Enterokolitis Nekrotikans = Comparison of Abdominal Ultrasonography and Abdominal X-Ray as a Diagnostic Aid in Very Premature Neonates Suspected of Necrotizing Enterocolitis

Siregar, Charles, author

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Abstrak

Latar Belakang: Enterokolitis nekrotikans (EKN) adalah penyakit peradangan berat pada dinding usus menyebabkan cedera dan nekrosis usus. Foto polos abdomen (FPA) serial masih dianggap sebagai standar diagnosis dan evaluasi penyakit ini, namun pemeriksaan ini tidak akurat dan sering terlambat dalam pelaksanaannya serta mengakibatkan neonatus sangat prematur terpapar dengan radiasi. Karenanya diperlukan alat diagnostik yang lebih aman, non-invasif mudah pelaksanaannya dan akurat. Dua dekade terakhir pemeriksaan ultrasonografi abdomen (USGA) semakin berkembang dan memperlihatkan hasil yang baik dalam diagnosis EKN, akan tetapi penggunaan modalitas ini di Indonesia dan khususnya di RSCM masih belum banyak dilakukan.

Tujuan: Mendapatkan akurasi gambaran ultrasonografi abdomen (USGA) dibandingkan dengan foto polos abdomen (FPA) dalam menegakkan diagnosis EKN pada bayi sangat prematur tersangka EKN.

Metode: Penelitian uji diagnostik potong lintang ini dilakukan pada 40 neonatus sangat prematur berusia antara 28-32 minggu yang dirawat di RSCM Jakarta pada bulan November sampai Desember 2023. Pada Neonatus sangat prematur tersangka EKN yang memenuhi kriteria inklusi dan eksklusi dilakukan pemeriksaan USGA dan FPA. Kedua hasil pemeriksaan dibandingkan menggunakan tabel kontingensi 2x2. Didapatkan sensitivitas 83% dan spesifisitas 43%. Hasil nilai prediksi positif 38% dan nilai prediksi negatif 86%, dan rasio kemungkinan positif (LR+) 1,45 dan rasio kemungkinan negatif (LR-) 0,39.

Kesimpulan: Ultrasonografi abdomen lebih akurat untuk penapisan (screening) menegakkan diagnosis EKN pada Neonatus sangat prematur dibandingkan foto polos abdomen.

.....**Background:** Necrotizing enterocolitis (NEC) is a condition characterized by severe inflammation of the intestinal wall leading to intestinal injury and necrosis. Plain abdominal radiography has long served as the standard for the diagnosis and evaluation of NEC despite its low diagnostic accuracy, impracticality, and the risk this modality poses from exposing neonates to ionizing radiation. Therefore, a safer, non-invasive, easy-to-implement, and more accurate diagnostic tool is necessary for diagnosing NEC. Over the past two decades, knowledge about abdominal ultrasound has developed greatly and has been shown to be an excellent modality in diagnosing NEC. However, in Indonesia this modality is still not widely used for diagnosing NEC, especially at Cipto Mangunkusomo National Public Hospital (RSCM) Jakarta.

Objective: This study aimed to assess the accuracy of abdominal ultrasonography in diagnosing NEC compared to plain abdominal radiography in very premature neonates suspected of NEC.

Methods: A cross-sectional diagnostic test study was conducted on 40 very premature neonates aged between 28-32 weeks, who were treated at RSCM Jakarta from November to December 2023. Neonates suspected of NEC who met the inclusion and exclusion criteria underwent both abdominal ultrasound and plain abdominal radiography. The findings from these two examinations were compared using a 2x2

contingency table to establish the sensitivity and specificity. A sensitivity of 83% and a specificity of 43% were found for abdominal ultrasound. The study also found a positive predictive value (PPV) of 38%, a negative predictive value (NPV) of 86%, a positive likelihood ratio (LR+) of 1.45, and a negative likelihood ratio (LR-) of 0.39.

Conclusion: Abdominal ultrasonography was found to be a more accurate for screening NEC in very premature neonates compared to plain abdominal radiography.