

*Correlations between Congestive Heart Failure Diagnosis based on
Echocardiography*

with Chest Radiography of Pulmonary Edema

**HUBUNGAN DIAGNOSIS GAGAL JANTUNG KONGESTIF
BERDASARKAN EKOKARDIOGRAM
DENGAN GAMBARAN RADIOGRAFI TORAKS EDEMA PARU**

Ilma Nazhira¹, dr. Ana Madjawati, Sp.Rad., M.Kes²

¹Student of Faculty of Medicine and Health Sciences Universitas Muhammadiyah Yogyakarta

²Department of Radiology of Faculty of Medicine and Health Sciences Universitas Muhammadiyah
Yogyakarta

ABSTRACT

Background: Based on Basic Health Research (RISKESDAS) the prevalence of heart failure in Indonesia in 2013 was 530,068 people. The cause of heart failure is difficult to recognize because of the variety of non-specific clinical conditions. Echocardiography has an important role in diagnosing heart failure because of its ability to determine intracardiac hemodynamics and see the structural causes of heart failure. Heart failure can occur with or without pulmonary edema, but both have different treatments, therefore appropriate diagnostic and therapeutic efforts are needed by the clinician.

Method: This study has an observational analytic design with retrospective data collection using a cross sectional approach. The study sample was 51 medical records of patients who had been diagnosed with congestive heart failure based on echocardiogram

Result: Of 33 patients (64.7%) who had heart failure 9 of them had pulmonary edema (17.6%) and 24 had no pulmonary edema (47.1%). Whereas from 18 patients (35.3%) who did not experience heart failure 2 of them had pulmonary edema (3.9%) and 16 had no pulmonary edema (31.4%).

Conclusion: From the research that has been done there is no relationship between the diagnosis of congestive heart failure based on echocardiogram with chest radiographs of pulmonary edema ($p = 0.180$).

Keyword: Congestive Heart Failure, Echocardiogram, Pulmonary Edema, Chest Radiography

ABSTRAK

Latar Belakang: Berdasarkan Riset Kesehatan Dasar (RISKESDAS) prevalensi penyakit gagal jantung di Indonesia tahun 2013 sebanyak 530.068 orang. Penyebab gagal jantung sulit dikenali karena beragamnya keadaan klinis yang tidak spesifik. Ekokardiografi memiliki peran penting untuk menegakkan diagnosis gagal jantung karena kemampuannya untuk menentukan hemodinamik intrakardiak serta melihat penyebab struktural gagal jantung. Gagal jantung bisa terjadi dengan atau tanpa edema paru namun keduanya memiliki penanganan yang berbeda, untuk itu diperlukan upaya diagnostik dan terapi yang tepat oleh klinisi.

Metode: Penelitian ini memiliki desain analitik observasional dengan pengambilan data secara retrospektif menggunakan pendekatan *cross sectional*. Sampel penelitian adalah 51 rekam medis pasien yang telah ditegakkan diagnosis gagal jantung kongestif berdasarkan ekokardiogram.

Hasil: Dari 33 pasien (64,7%) yang mengalami gagal jantung 9 diantaranya memiliki edema paru (17,6%) dan 24 lainnya tidak memiliki edema paru (47,1%). Sedangkan dari 18 pasien (35,3%) yang tidak mengalami gagal jantung 2 diantaranya memiliki edema paru (3,9%) dan 16 lainnya tidak memiliki edema paru (31,4%).

Kesimpulan: Dari penelitian yang telah dilakukan tidak didapatkan hubungan antara diagnosis gagal jantung kongestif berdasarkan ekokardiogram dengan gambaran radiografi toraks edema paru ($p=0,180$).

Kata kunci: Gagal Jantung Kongestif, Ekokardiogram, Edema Paru, Foto Toraks