

1. Abstract Title:

Clinical Impact of Hemodialysis on Short-term Prognosis in Acute Heart Failure:
Multi-center Registry from Tokyo Cardiovascular Care Unit Network

2. Abstract Category (from attached list):

Heart Failure and Cardiomyopathies: Clinical

3. Keywords (between 1 and 3 from attached list):

Heart failure, Hemodialysis

4. Abstract Body (maximum 1900 characters, not including spaces):

Background:

Heart failure (HF) is a highly prevalent cardiovascular complication among patients receiving chronic hemodialysis (HD). The aim of this study was to determine the prevalence, clinical profiles and short-term mortality of HF patients with or without HD in Japan.

Methods:

We used the Tokyo Cardiovascular Care Unit (CCU) network cohort data, which represents the largest citywide, most well-organized cardiac care network for a metropolitan area in Japan.

Results:

Of total 10138 urgent-hospitalized patients due to acute HF at 72 Tokyo CCUs between 2015 and 2016, 414 HD patients were included. The background characteristics showed many differences between HD and non-HD arm. The 30 days mortality was significantly higher in HD arm than non-HD arm (10.9% vs. 6.2%, $p < 0.001$). Multivariate analysis revealed that the presence of HD was an independent predictor of 30 days mortality (OR 1.97, 95%CI: 1.26-3.08). By using Cox proportional hazard regressions analysis, HF patients with HD had a higher risk of all-cause death during 30 days compared to those without HD (adjusted HR 2.26, 95%CI: 1.49-3.42). In subgroup analysis, HD had more impact on the risk increase of 30 days mortality in HF patients with reduced EF (EF < 40%), but not significant in preserved EF (EF \geq 40%) (Figure).

Conclusion:

HD was dominant predictor of short-term mortality in the patients developed acute HF, especially with reduced EF.

****If you have an image or table to include, your abstract body cannot be more than 1300 characters, not including spaces****

Background:

Methods:

Results:

Conclusion:

5. Clinical Implications (complete the following sentence):
My study will help enable cardiovascular clinicians to predict short-term prognosis of acute heart failure patients receiving chronic hemodialysis according to his or her cardiac function.

***My study will help enable cardiovascular clinicians to...**

6. Authors (first name, last name, email address):

Akito, Shindo, ashindou-ky@umin.ac.jp

Masao, Yamasaki, masayamlmt99@gmail.com

Takahiro, Jimba, blackjtaka@yahoo.co.jp

Makoto, Takei, makoto_tk@hotmail.com

Yasuyuki, Shiraishi, white_cascade_libra@yahoo.co.jp

Shun, Kohsaka, skohsaka@hotmail.com

Kenichi, Matsushita, kmatsushita@ks.kyorin-u.ac.jp

Kiyoshi, Iida, iida.kiyoshi@nihon-u.ac.jp

Kazumasa, Harada, kharada@tmghig.jp

Ken, Nagao, nagao.ken@nihon-u.ac.jp

Takeshi, Yamamoto, yamamoto56@nms.ac.jp

Morimasa, Takayama, 6680m-takaya@shi.heart.or.jp

7. Responsible Institutions (between 1 and 2 institutions, include name, city, country):

Tokyo CCU network Scientific Committee, Tokyo, Japan

8. Lead Investigator (name of senior author or primary investigator):

Morimasa, Takayama