

**FP20 THE 7 MHZ OF LOVE:
ASSESSMENT OF SYSTOLIC
FUNCTION USING BEDSIDE
ULTRASOUND OF TEN PATIENTS
WITH CHRONIC KIDNEY DISEASE
PRESENTING WITH PULMONARY
CONGESTION AT THE
EMERGENCY DEPARTMENT OF
SOUTHERN PHILIPPINES
MEDICAL CENTER**

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Chronic Kidney disease patients with or without dialysis treatment may develop symptoms of heart failure. With the advent of technology, bedside ultrasonography can now be done to help identify the cause of congestion -- not only on OPD basis, but also at the emergency level. This case series report on 10 patients who are diagnosed case of CKD with no previous history of hemodialysis, presented with undifferentiated dyspnea and diagnosed as pulmonary congestion upon arrival at the Emergency department. These patients complained with difficulty breathing and triaged as ESI 1 under the Emergency department of Southern Philippines Medical Center, Davao city, Philippines. The result shows that majority of patients present with normal systolic function as evidence by the mean average ejection fraction of 52% and mean average fractional shortening of 28%. A mean average inter-ventricular septum diameter of 1.5 cm (normal: 1.2 cm) finding is indicative of left ventricular hypertrophy in 90% of patients. In the pulmonary findings, it was observed that 100% of patients presented with B profile > 4 lung zones indicative of pulmonary edema. For the IVC diameter, 3 of the 10 (30%) patients presented with <2 cm IVC diameter amidst presenting signs and symptoms of pulmonary edema. This case series therefore concluded that most CKD patients presenting with heart failure still has preserved systolic function despite

signs of failure, which suggest that dyspnea was caused by the complications of CKD.

INTRODUCTION

Worldwide, it was estimated that 10 percent of the global population is suffering of Chronic Kidney Disease. In the Philippines, a 2013 data shows that 10,000 Filipinos are developing kidney problems annually. The 2013 data shows 23,000 Filipinos undergoing dialysis compared last 2004 where only 4,000 are undergoing such procedure. Kidney disease is the 7th cause of morbidity and 8th cause of mortality among Filipinos. Recently, the Philippine Renal Disease registry released a data revealing 28,000 Filipinos currently undergoing dialysis. {1}Undifferentiated dyspnea is a common symptom affecting as many as 25% of patients seen in the emergency department. It can be caused by many different underlying conditions, some of which arise acutely and can be life-threatening, which can be of a pulmonary or cardiac etiology. Among CKD patients, the clinical dilemma of whether managing the patient as a case of Pulmonary congestion secondary to Acute Coronary Syndrome, Acute Heart Failure and multifactorial cause secondary to Nephropathy is imminent. Thus, rapid evaluation and targeted diagnostic studies are of central importance – where the use of bedside ultrasound is beneficial among emergency physicians.

THIS CASE SERIES AIM TO

Describe the demographic and clinical characteristics of 10 cases of patients with chronic kidney disease presenting with acute pulmonary congestion in the emergency department of Southern Philippines Medical Center.

Describe the cardiac profile of these patients using point-of-care ultrasonography. Discuss dilemmas in clinical management of these patients.