Emergencies - A Series

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15th June 2022, at 1 am, Mr.Samidurai, the 43 years old male with a known case of CKD, came to a casualty with acute breathlessness for 1 hour with a history of cough with expectoration. Known case of diabetes mellitus and hypertension. On evaluation, Tachypnea, Tachycardia, and pitting pedal edema positive, with Extensive crackles over both lungs.

Vitals: BP – 160/90 mmHg, RR – 33 breaths/mt, PR – 120 bpm, CBG – 261 mg/dl, SpO2 – 79% RA with NIV 98%

RFT: Creatinine – 4.4, Urea – 83, Uric acid – 9.4, Potassium – 4.3, Nil urine output in foleys catheter

ABG: Ph-6.9, Nephrology consultation obtained, advised Hemodialysis. The patient is not willing to dialysis. Hence medical management was given by the Department of Medicine.

Advice: DIL/Backrest/ O2, Inj. Dobutamine + Inj. Dopa 3 mcg each/kg/mt, Inj. Lasix infusion 2 mg /kg infusion, 30 ml /hr ½ NS 400 + 100 ml NaHCO3, Inj MgSO4 2amp in 50 NS, InjPiptaz 4.5g IV Stat 2.25 gm IV Q8H, T. Shelcal 500 mg 1-0-0, T. Vit D3 60,000 (U) IM Stat, Syp. Kcit 10 ml TID in 50 ml water, T. Febuxostat 40 mg 1-0-0, Inj. NBF + Thiamine 2 amp in 100ml NS, T. Folic acid 5mg 1-0-0

At 7.30 AM Input 625 ml, Output 850ml, BP – 120/80 mmHg, HR – 99bpm, RR – 20 breaths / min, SpO2 – 98%

Advised: Inj. Lasix 2ml / hr infusion ½ NS 400ml + 100ml NaHCO3 30ml/hr

On 16th June made, a Diagnosis: Acute Pulmonary edema / Acute Chronic Kidney Disease / Metabolic acidosis, Breathing difficulty + decreased sleep

General examination: Concious, oriented, afebrile, RS: Crackles +, ESR = 51mm/hr, Hb = 9.2, Total count = 24,200, pH = 7.3, Hb = 9.2, AST = 43 , Creatinine = 4.5, Uric acid = 9.4, Urine albumin ++, Urine sugar +

Adviced: Inj. Lasix 20mg IV Q8H, T. Carvedilol 12.5mg BD

At 8.30 AM

Breathlessness +, Reduced leg edema, Crackles + below scapula fine-dry

BP = 160/100mmHg

I/O = 1357/1810

On 17th June at 10.45 AM, Crackles below the scapula and Pedal edema decreased.

HR = 86bpm, SpO2 = 98 %,

He advised: Salt restriction, Inj. Lasix 20mg Q8H, Inj. Piptaz 2.25gm IV Q8H, Remove Foleys catheter and Transferred to ward.

On 18th June, Diagnosis: Acute pulmonary edema / Acute Chronic Kidney Disease / Metabolic acidosis

General examination: Conscious, Oriented, Afebrile, Pitting pedal edema + CVS: S1S2 heard, no murmurs RS: Crackles below the scapula.

Adviced DIL / Bedrest / O2 SOS, Salt restriction, Inj. Lasix 20mg Q8H, Inj. Piptaz 2.25gm IV Q8H, T. Shelcal 500mg OD, T. Febuxostat 40mg OD, T. Amlong 5mg HS

Discharge summary:

The patient came with complaints of breathlessness, decreased urine output, pedal edema, cough with expectoration, Known case of Diabetes Mellitus, Hypertension, Extensive crackles both lungs, EF = 40%

Rx: Nephrologists advised Hemodialysis; the patient was not willing.

Rx : Antibiotics / Diuretics / Nephroprotective drugs

Condition improved and discharged

Investigations: Hb = 9.2gm %, Platelets = 2.4, ESR = 51mm/hr, Albumin ++, Sugar +, Ketone –, Total Bilirubin : 0.2 / 0.1, SGOT= 43, SGPT= 22, Albumin = 4, Globulin = 1.6, S. Calcium = 6.6, S. Phosphorus = 5.8

Advice on Discharge: T. Nodosis 500 mg BD, T. Nephrosave 500 mg BD, T. Livogen BD, T. Vit D3 25mcg 1-0-0, T. Lasix 40mg-20mg-0, T. Lobun 1-0-0, T. Shelcal 500 mg OD, T. Amlong 5 mg HS, T. Atorva 40 mg HS, T. Clopilet 75 mg OD.

This case shows that dopamine increases renal perfusion; nephrologists are often against low-dose dopamine, and dobutamine works as an inotrope. This combination with Inj. Furosemide resolves the issues of acute renal shutdown, acute pulmonary edema, and metabolic acidosis with soda bicarbonate in dilution.