

CASE STUDY PRESENTATION A PULMONOGY CASE- ARDS

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Presentation by-
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Case Study

A 52 year old male patient who is a k/c/o HTN on regular medications presented to the ER in severe ARDS due to H1N1 positive bilateral pneumonia on mechanical ventilation in CMV mode on 9/06/2014. He had a h/o fever, cough, shortness of breath, malaise and generalised weakness for 5days. Initial evaluation had revealed bilateral lower lobe consolidation with thrombocytopenia and H1N1 positive.

He was admitted to the ICU and treated with prone mechanical ventilation from 10/06/2014 to 14/06/2014 for a total of 102 hours. His oxygenation improved and he was gradually weaned off ventilator by 26/06/2014.



ACUTE RESPIRATORY DISTRESS SYNDROME

Acute respiratory distress syndrome

Acute respiratory distress syndrome (ARDS) is a life-threatening lung condition that prevents enough oxygen from getting to the lungs and into the blood.

Causes

- ARDS can be caused by any major direct or indirect injury to the lung. Common causes include:
- Breathing vomit into the lungs (aspiration)
- Inhaling chemicals
- Lung transplant
- Pneumonia
- Septic shock (infection throughout the body)
- Trauma



GENERAL INFORMATION

Name- Mr. R

Age- 52 years

Sex- Male

Date of admission- 09/06/2014

Date of discharge- 10/07/2014

Duration of stay- 31days



MEDICAL HISTORY:

- **History of presenting illness-**
Fever and weakness for 5days associated with orthopnoea and breathlessness for a day.
- **He was found to have bilateral lower lobe consolidation and thrombocytopenia**
- **H1N1 positive**
- **Family medical history- Nothing significant**
- **Past medical history-History of hypertension**



GENERAL PHYSICAL EXAMINATION

- **Pallor- No**
- **Cyanosis- No**
- **Clubbing- No**
- **Edema- No**

VITAL DATA:

- **Temperature- 98.4⁰F**
- **Pulse- 126 beats/minute**
- **Respiratory rate- 40 cycles/min**
- **BP- 150/90 mmHg**



SUBJECTIVE INFORMATION

- **Appetite- Moderate**
- **Thirst- Normal**
- **Micturition- Normal**
- **Bowel habit- Normal**
- **Sleep- Normal**
- **Social habit/ addictions- None**
- **Type of diet- Non-Vegetarian**

SYSTEMIC EXAMINATION:

- **Cardiovascular system- Normal**
- **Neurologic system- Normal**



DIAGNOSIS

Acute Respiratory Failure

Acute Respiratory Distress Syndrome

Bilateral Viral Pneumonia

PROCEDURES UNDERGONE

Bronchoscopy on 16/6/2014

Bronchoscopy guided tracheostomy on 20/06/2014



BIOCHEMISTRY

Parameters	Normal Range	Results									
		10/6	12/6	18/6	20/6	22/6	23/6	25/6	26/6	28/6	30/6
Hb	13-17mg/dl	12.8*	12.6*	13*	-	-	-	-	11.3*	-	13.3
SGPT	5 – 45 mg/ dL	43	-	-	26	-	-	-	-	-	-
S.Cr	0.66 – 1.09 mg/dL	1.2*	1.04	1.4*	1.4*	1.37*	1.36*	1.39*	1.25*	1.16*	1.2*
S.Na	135 – 145mEq/dL	138	139	145*	150*	147*	150*	142*	145*	-	135*
S.K	3.5 – 5.5 mEq/L	5.3	4.8	4.2	4.3	4.2	3.8	3.8	-	-	4.8
S.Cl	98 – 107 mg/dL	105	102	110*	116*	116*	115*	108*	-	-	97*
S. Urea	15 – 45 mg/dL	67*	79*	129*	-	121*	123*	-	137*	135*	-

MEDICATIONS AT HOSPITAL

Medications	Dose	Purpose
Inj.Magnex	1.5g	Antibiotic
Tab Pan	40mg	Antacids
Tab Ivabrad	5mg	To treat the symptoms of chronic angina. It helps to reduce the pain associated with angina by slowing down the heart beat
Tab Quetiapine	25mg	Is a short-acting atypical antipsychotic approved for the treatment of schizophrenia , bipolar disorder , and along with an antidepressant to treat major depressive disorder .
Neb Levolin		Used to treat bronchospasm and asthma attack
Inj.Clexane	40mg	Anticoagulant
Tab Nodon	5mgls	A beta1 receptor blocker with nitric oxide-potentiating vasodialtory effect used in treatment of hypertension
Tab Lasix	40mg	Diuretic
Tab Omnacortil	20mg	Steroid used by patients as a treatment for various different health problems including lupus, skin conditions, breathing conditions, allergies, psoriasis
Tab Dolo	650mg	Analgesics

ANTHROPOMETRIC MEASUREMENTS:

- **Height (cm)- 166cm**
- **Weight (kg)- 70kg**
- **Body Mass Index (kg/m²)- 25kg/m²**
- **Ideal Body Weight (kg)- 66kg**

Nutritional Requirements – Using Harry's Benedict equation

Energy- 1800kcal, Protein- 75g



DIET AT HOME

Meal time	Menu	Amount (g)
Early morning	Tea	100ml
Breakfast	Idli	4
	Coconut chutney	1katori
	Sambhar	1bowl
	Fruit	100g
Mid morning	Tea	100ml
Lunch	Chapathi	1
	Rice	1cup
	Cabbage sabji	1katori
	Salad	1bowl
	Curds	50g
Evening snack	Tea	100ml
Dinner	Rice	1½ cup
	Rasam	1katori
	Curds	1katori

Energy	CHO	Protein	Fat
1505.95kcal	198.965g	44.07g	59.36g



Nutrition support for this patient was a primary requirement



DIET IN THE HOSPITAL

Date and time	Diet	Route	Energy(kcal)	Protein(g)
10/6/2014	RTF at 100ml/ 4th hourly	Enteral	1239	41.63
14/6/2014	RTF at 200ml/ 4th hourly	Enteral	1823	72.71
17/6/2014 to 28/6/2014	RTF at 100ml/ 4th hourly	Enteral	1239	41.63
28/6/2014	Low salt semi solid diet	Oral	1300	30
30/6/2014	Low salt semi solid diet+ Supplement feeds	Oral	500 710.25	12 46.75



Ryle's Tube Feed

TIMINGS	FEED	QUANTITY
6 am	Feed	200 ml
10 am	Feed	200 ml
2 pm	Feed	200 ml
6 pm	Feed	200 ml
10 pm	Feed	200 ml

Energy(Kcals)	Protein(gms)	Fat (gms)
1823.52	72.71	66.81



SUPPLEMENT FEED



TIMINGS	FEED
9 am	Supplement + Apple milkshake(Supplement 25gms +25ml of milk+1/2 an apple)
12 pm	Egg nog(100ml of milk+ low kal 1sachet+1 egg white)
6pm	Supplement Apple milkshake(Supplement 25gms +25ml of milk+1/2 an apple)
10pm	Supplement Apple milkshake(Supplement 25gms +25ml of milk+1/2 an apple)

Energy(Kcals)	Protein(gms)	Fat (gms)	Na.(mEq)	K+(mEq)
710.25	46.75	20.63	13.03809	20.48538



Outcome

Tracheostomy was decannulated on 3/07/2014. Steroid dose was gradually tapered. He had steroid induced hyperglycemia which was managed by insulin and OHA. His oral intake and strength improved.

He was discharged in stable condition.

Diet Advice

Soft solid diet with normal salt and Protein supplement 4 times a day as started in the hospital and to be tapered as the food intake improves.



Thank you

