Pediatrics Congress 2018
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Malignant Pertussis

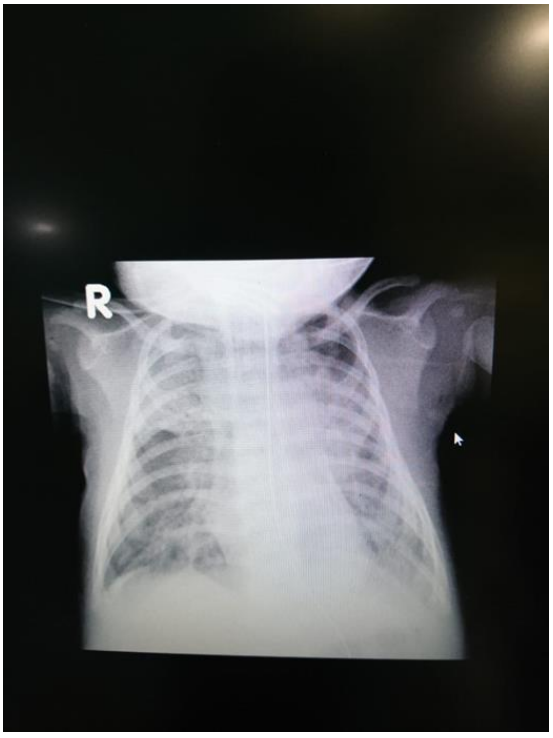
Khawla AlBlooshi
Shivanashiva kumar

Abstract (300 word limit)

The World Health Organization reported 24.1 million pertussis cases and 160,700 deaths in children younger than 5 years in 2014 worldwide. Malignant pertussis is a complication of Pertussis infection characterized by severe respiratory failure, sever leukocytosis, pulmonary hypertension, leading to multiple organ failure and death.

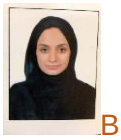
Apparently healthy baby, born at term. Birth weight 3.1 kg. Presented with history of cough for 3 days and fever. On arrival baby was alert and active. She was tachypnea with subcostal recessions, bilateral crackles and rhonchi. She was admitted to pediatric ward since vitals were acceptable (Temp. 37.4°, RR: 64/min. SpO_2 94% on room air). Chest x-ray showed opacification of the upper right lobe and to lesser extent on the left side. Initial ls showed: (WBC:, 29000, HB:11.9, Platelet: $718X10^3$, Neutrophils: 31%, Lymphocytes: 49.5%. Pathology report: Neutrophils with toxic granulation and vacuolation, CRP: 73, Procalcitonin: 7.5, Capillary blood gas: PH 7.37, PO2 29.0, PCO2 56.0, Saturation 51, Bicarbonate 31.Preliminary diagnosis was Pneumonia. Baby was started on cefotaxime, vancomycin and ampicillin on admission. Soon after arrival to ward baby deteriorated, required extra oxygen and was shifted to PICU, Fifteen hours after admission she deteriorated further and there was insufficient response to high flow cannula. Capillary blood gas showed PH 7.29, PO2 41.0, PCO2 65.1, saturation 69, HCO3 30.1. The child was exhausted, rapidly breathing with respiratory rate of 85-90/minute, patient was intubated and connected to the mechanical ventilator with (PCV-VG) mode and Oxygen of 50%.patient condition were deteriorated, repeated blood investigation showed sever leukocytosis WBC 61000, platelets $638X10^3$, sputum culture were negative sample were taken for H1NI & Pertussis. Patient remained ventilator and circulatory unstable. Commenced on Inotropic support after placement of PICC line Conventional ventilator could not deliver sufficient tidal volumes due to decreased compliance and tube leakage, so she was ambu-bagged. Over the next 18 hours the patient remained critical with another few episodes of cardiac arrest resolved with CPR, IV adrenaline and bicarbonate. As the conventional ventilator was not useful in providing the ventilation and oxygenation, High frequency Oscillation ventilation (HFOV) was considered. She was commenced on HFOV. Due to clinical picture of insufficient pulmonary blood flow she was given sildenafil via the nasogastric tube. Despite aggressive ventilator treatment, inotropic support and repeated doses of adrenaline and bicarbonate she died from persistent hypoxemia.

RSV and H1N1 came out negative, no growth in cultures from blood and sputum. PCR for Bordetella Pertussis DNA- POSITIVE.



Image

Complete Blood Count	WBC	RBC	Hgb	Hct	MCV	MCH	MCHC	RDW
9/3/2018 00:41 AST	H 29.0	4.0	L 11.90	36.80	92.70	30.00	32.30	14.90
10/3/2018 13:05 AST	* C 61.6	L 3.6	L 10.70	L 32.90	L 91.90	L 29.90	32.50	15.00
12/3/2018 00:10 AST	* C 81.7	L 3.0	L 9.00	28.40	93.40	29.60	31.70	15.00
Complete Blood Count	Platelet	MPV	Neutro %	Lymph %	Mono %	Eos %	Basophil %	Neutro Absolute
9/3/2018 00:41 AST	H 718.00	H 9.10	31.10	49.50	H 18.10	L 0.40	0.90	H 9.01
10/3/2018 13:05 AST	H 638.00	8.40	51.7	L 34.90	H 16.90	L 0.30	0.0	31.8
12/3/2018 00:10 AST	287.00	H 9.90	54	L 36.90	8.60	L 0.50	----	----
Complete Blood Count	Lymph Absolute	Mono Absolute	Eos Absolute	Basophil Absolut	Mixed Cells Absc	PDW		
9/3/2018 00:41 AST	14.35	H 5.26	0.11	H 0.26		10		
10/3/2018 13:05 AST	H 23.36	H 10.97	0.17	0.0	8.30	9		
12/3/2018 00:10 AST	H 30.18	H 7.03	0.42	----		10		



Biography (150 word limit)

Dr. Alblooshi graduated with an MBBS from Gulf Medical College in 2008. She joined Pediatric residency program at Sheikh Khalifa Medical city in Abu-Dhabi (ACGME certified) since 2010 .She became certified as a Specialist in Paediatrics through Arab Board in 2015, She also Certified in Medical Quality by The American Board of Medical Quality.
Prior joining SKMCA, Dr.Khawla was working paediatric Specialist in Paediatric Department and she was assigned as Medical director
Dr. Khawla Alblooshi joined SKMCA in December 2016 as Deputy CMO for Sheikh Khalifa Hospital –Women & children.

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Notes/Comments:

*Photograph of presenting author, Biography and image related to the presentation are mandatory.