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CASE REPORT

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ABSTRACT

Hanging is the most common method of suicide, and usually individual dies after some time extending in few minutes. During that, victim if rescued, may develop convulsion, raised intracranial pressure and unconscious immediately. This paper highlights, the successful management of a patient following non-lethal hanging. Here in, patient was brought to hospital in unconscious state with ongoing seizure. The patient was managed in intensive care unit was successfully treated and discharged.

INTRODUCTION

Hanging is defined as death due to external pressure as a result of ligature in to the neck of a fully/partially suspended individual (1,2). The term "near hanging" refers to patient who survives a hanging injury long enough to reach hospital. Most of the patient develops respiratory and neurological complication immediately after the rescue. Pulmonary edema is commonest complication which usually occurs immediately following their rescue from acute airway obstruction or suicidal hanging(3,4). Here we are presenting a case of near hanging who developed pulmonary edema that was delayed by 2 hours following incidence. He presented in unconscious state with convulsion. Successfully resuscitation and intensive therapy improved in oxygenation and prevention of neurological symptoms.

Case Report

A 15 year old male near hanging victim was brought to our intensive care unit(ICU) with an alleged history of suicidal hanging. On examination patient was in unconscious state with respiratory distress and peripheral cyanosis with blood pressure of 86/60 mm hg. His pupil was normal in size and reacting to light. He was exuding copious pink frothy secretion from oral cavity , on auscultation bilateral crept were present, patient was having tachypnea with respiratory rate 40/min. His pulse oxymetry revealed SPO2 – 80 % and arterial blood gas (ABG) analysis showed PaO2 – 42, pH – 7.29, HCO3 – 20.

After few minutes of examination and approximately 2 hours after incidence, patient had one episode of seizure, immediately injection midazolam 1.5 mg given, after subside of seizure injection thiopentone 150mg and succinylcholine 75mg IV then oral intubation done with 8 no. cuffed potex endotracheal tube and was ventilated with AMBU bag on 100 % , saturation improved to 90% within few seconds. The patient was put on ventilator on assisted ventilation with respiratory rate 12/min, tidal volume 6 ml/kg , positive end-expiratory pressure(PEEP) 5cm of H2O and Fio2 – 60%. X-Ray of cervical spine antero-posterior and lateral view revealed no bone injury, non-contrast CT head study was normal but chest x-ray AP showed features of pulmonary edema. He was given furosemide 40 mg and morphine 4.5 mg IV and repeated 6 hourly. All biochemical, hematological parameter were reported as normal. After 24 hr of presentation chest condition was markedly improved and FiO2 support was reduces to 50%. Arterial blood gas analysis revealed Pa02 110 mm hg, paCo2 – 32 mm hg, pH- 7.40, SaO2 – 98 % on FiO2 50%. Then patient was put on continues positive airway pressure on Fio2 – 35% for next 8 hour. After 8 hour ABG was satisfactory and then patient was extubated, and he maitianed stable vitals. The patient became conscious with spontaneous respiratory efforts. Then, patient was gradually

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weaned off from assisted ventilation with close laboratory follow up in time period and was finally on spontaneous ventilation on day 5 of hospital stay. The patient was kept under observation for another 2 days and was discharged on the 7th day of hospitalization

DISCUSSION

Suicide hanging is one of the 10 leading cause of death in the world [5]. Death in suicidal hanging is secondary to hypoxia and cerebral ischemia caused by compression of major airway and vessels of neck as a result of ligature [6].

Patient may be saved by aggressive resuscitation measures if rescued within a few minutes involve which includes advance supporting of respiratory and central nervous system.[7]. The signs are respiratory distress, muscular rigidity and convulsion. [8]. The patients need advance life support with close laboratory follow up. Pulmonary edema is one of the initial complaint which becomes apparent within seconds to minutes after relief of upper airway obstruction. There are two types of post obstruction pulmonary edema , Type-1 follows a sudden, severe episode of upper airway obstruction such as post extubation laryngospasm , epiglottitis ,chocking which is also associated with near hanging. Type-2 post extubation edema, which develops after surgical relief of chronic upper airway obstruction as in case removal of upper airway tumors, which if left untreated, results in a squeal to multiple organ failure and ultimately death.

In our case patient developed pulmonary edema after 2 hour of hanging. In such cases, the strategy of management should be to maintain adequate oxygenation [9]. Early hour intervention of invasive mechanical ventilation important role which prevents the further damage to lungs. According to individual patient condition ie depending on relative percentage collapsed vs. normal alveoli judicious planning of ventilator along with laboratory monitoring is required.

The objective should be oriented to opening of the collapsed alveoli without damaging the normal areas. Limiting tidal volume to 6-8 ml/kg may help in this situation. Enteral nutrition should be established quickly, using Ryle's tube feed with prokinetic drug . Other factors such as control of infection by antibiotics coverage and removal of secretion facilitate faster recovery.

The management of a case of near hanging reqires urgent active intervention with the objective of salvaging the respiratory and central nervous system along with supporting measure of antibiotic coverage and nutrition. Probably the extent of alveolar damage is one of the key decidig factor for the duration of stay in ICU.

References

1. Adams N. Near hanging. Emerg Med. 1999;11:17–21
2. McHugh TP, Stout M. Near-hanging injury. Ann Emerg Med. 1983;12:774–6
3. Oswalt CE, Gates GA, Holmstrom Pulmonary edema as a complication of acute air way obstruction. JAMA. 1977;238:1833–35
4. Lang SA, Duncan PG, Shephard DA, Ha HC. Pulmonary oedema associated with airway obstruction. A Review. Can J Anaesth. 1990;37:210–18
5. Mohanty S[1], Sahu G, Mohanty MK, Patnaik M. Suicide in India: a four year retrospective study J Forensic Leg Med. 2007 May;14(4):185-9
6. Vij K (2001) Textbook of Forensic Medicine, Principles and Practice. 1st edition, New Delhi: Churchill Livingstone Pvt, 62
7. Aggarwal NK, Kishore U, Agarwal BB (2000) Hanging-delayed death (a rare phenomenon). Med Sci Law 40: 270-272.
8. Gorden I, Shapiro HA, Berson SD (1998) Forensic Medicine – A guide to principles. 3rd edition, Deaths usually initiated by hypoxic hypoxia or anoxic anoxia, 95–12
9. Oswalt CE, Gates GA, Holmstrom MG (1977) Pulmonary edema as a complication of acute air way obstruction. JAMA 238: 1833–1835

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