AIRWAY OBSTRUCTION IN THE OBESE PATIENT – *LOST IN A JUNGLE OF OBSCURED LANDMARKS*

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It's nearly 5:00 p.m. on a quiet weekday afternoon in September. You are the sole emergency room physician staffing the ED of a community hospital and you find yourself staring at the clock wondering what dinner holds in store. The day has been relatively routine; perhaps too slow; certainly uneventful from your perspective. Suddenly, a commotion in reception catches your attention. It seems that a female is yelling at someone but you cannot quite make out what is being said. Without necessarily connecting the two, you "sense" the male patient that stumbles into triage, is assisted to a stretcher, and then quickly wheeled into exam cubicle #2. Because of the commotion, you turn away from the sore throat that you have been evaluating and pull the curtain open to gaze upon a 5'5", 210 lb male gasping for breath. He is agitated, dypsneic and appears dusky. He is clearly in distress. Both the patient and his wife verbalize that he cannot breathe and that he has asthma. You attempt to get oxygen to him but he is combative and alternates between pushing you away and grabbing your arm. You request the wife to go with a nurse to provide additional history as the decision is made to immediately move the patient to the trauma bay so that the equipment needed can be accessed and so that personnel can surround the patient. As you begin to move him, a mere 30 – 45 seconds after your arrival, he codes.

You move into the protocol that has been drummed into you since your training; confident of your ability to resuscitate the patient; to tube him if needed; to bring him back from the brink of death. You order subcutaneous epinephrine two minutes into the drill along with Solumedrol via IV.

Despite orders for assistance you find yourself managing the "set up" tasks as well as the patient – you actually have to get things out and assemble them yourself as you work to keep his airway open.

The patient is an extremely difficult intubation. His obesity obscures the landmarks. He has the proverbial "short neck" that goes hand in glove with obesity. He is producing copious secretions. You scope him but cannot find the precious landmarks needed for quick or successful intubation. Still you fight to provide the airway that he desperately needs.

The continuous and copious secretions in the mouth create more difficulty with visualization of the cords. The severe edema only worsens the picture. The option of performing a cricothyroidotomy is there but you hesitate, uncomfortable with your lack of clinical experience in performing the procedure. The clock is ticking but the O2 Sats are between 94% and 100% so you think you have time. You try again and again to force the tube but you cannot see and you cannot pass it.

Twelve minutes into the code someone reports that the patient is the victim of a bee sting. Finally, the edema/secretions make sense – you think anaphylaxis. The clock is ticking as you repeat orders for Epi and add Benadryl, Valium, Succinylcholine, and Lidocaine. Chest compressions have been ongoing for some time now but still no response.

Again you consider the surgical airway only to find that the equipment needed for the cricothyroidotomy is not on the crash cart. Again, you call for help from anesthesia but in the rural setting there is little physician help at the ready.

Finally, 50 minutes into the episode, an internist arrives and takes over intubation efforts. You move to assemble the cricothyroidotomy equipment having to do so yourself because the staff is not experienced with it. Ultimately you place the tube and position it only to learn that there are no connectors available to hook it up to the BVM or any O_2 delivery system. You desperately blow into it praying that a connector can be located. A full one hour into this nightmare an anesthesiologist arrives and after several attempts she is able to get the patient tubed.

Your patient dies. You are sued. You scream – "The man coded 30 seconds into my eval!!!"

Sound unimaginable? Think this could not happen to you? Think again. While this case occurred in the ED setting it is just as likely to be seen in a clinical setting with a drug reaction – whether the "clinic" is a private physician's office, on the floor at a hospital, in the ICU of a hospital or elsewhere. As you have come to know too well, crisis often breeds chaos and chaos often breeds delay in the implementation of treatment desperately needed by your patient. Add the complication of distorted anatomy from obesity in the context of airway obstruction and the situation becomes almost overwhelming. The landmarks that physicians rely upon for successful intubation are often distorted and cannot be visualized in the obese patient. Obstruction of the airway which produces hypoxia can further complicate intubation because of relaxation or collapse of the airway and or vomiting of stomach contents. Alternative measures exist in large academic/teaching hospitals but are rarely available outside of that setting. These include LMA's, fiberoptics, bouge tubes, and other doctors that are standing by for assistance if needed. By far, oral intubation is the first attempt made by most physicians but a surgical airway must always be a viable consideration and inexperience in performing this potentially life saving technique is of little help in defending against a claim of malpractice.

It is not enough to argue that the scenario was hectic; that the code occurred as you walked in or shortly thereafter; that the patient's body habitus created problems that you did not cause and could not prevent. You must be decisive in your approach to airway obstruction. You must be aware of the clock. You must be, or become, competent with the procedures that create an alternative airway when you cannot establish one through conventional channels. You must be prepared for the difficult or seemingly impossible airway. You must act to insure that your office/department/unit has what you need, when you need it, before such an emergency presents. It is imperative that this scenario be rehearsed before such an emergency presents!

Until next time, remember: "it may indeed be easier to pass a camel through the eye of a needle than a tube down the throat of an obese patient so prepare yourself for this daunting task before The Real McCoy arrives!!"