

## Haemoptysis: The Definition Should Be Revised

We think that the definition of haemoptysis should be revised and it should be classified into two groups only, that is, active and massive or life threatening haemoptysis.

Classically, haemoptysis means expectoration and spitting of blood through the mouth, which can range from minimal to copious volumes. The real problem faced by the clinicians is to quantify and then to take action accordingly. If massive, haemoptysis can be fatal, and therefore, requires clear understanding and precise definition. The definition of massive haemoptysis varies widely in the literature and has not been completely agreed upon. The attempt of previous authors has been to define massive haemoptysis on the basis of volume of expectorated blood only and no cut-off volume has been agreed upon, which ranges between 100 mL/day<sup>1</sup> to as high as 1000 mL/day<sup>2</sup>. Also, in real practice, the accurate quantification of haemoptysis is very difficult. In many instances the amount of expectorated blood may be exaggerated by patients. Not only that, patient may have accumulated huge amounts of blood in the healthy or opposite lung which will under-estimate the overall amount of blood loss and that may be significant.<sup>3</sup> Lastly, mortality and morbidity in these patients depend on not only the volume of expectorated blood but also the rate of bleeding, the ability of the patient to clear blood from the airways and the extent and severity of any underlying lung disease.<sup>4</sup>

Authors feel the time has come to revise the definition which should be either active or massive / life-threatening haemoptysis. In active haemoptysis, bleeding is active but not threatening the haemodynamics of the patient. Bronchoscopy can localise the source of bleeding and any active treatment from local instillation of adrenaline to endobronchial placement of glue or bronchial artery embolisation may be planned.

The term, massive or life-threatening haemoptysis should be applied in patients where the bleeding is so intense as if the water tap has opened non-stop and the patient is sinking. This is the time when you fight to

access the airway at any cost to save the life, nothing works at that time. Even bronchoscopic guided intubation is theoretical. When massive bleeding is going on due to rupture of aneurysm or bronchial artery rupture or due to interventional bronchoscopic procedure like EBES and cryotherapy, this is the life-threatening condition. One has few minutes to access the airway. Patient is continuously coughing and expectorating blood and getting exhausted. In that period of few minutes if you are able to pass the endotracheal tube with the help of the team around, you will be able to salvage the patient. A good and continuous suction of the airway will help to avoid flooding of the bronchial tree and resultant hypoxia. This is what is true massive and life-threatening haemoptysis. So in our opinion and experience the definitions of haemoptysis should be either active or massive / life-threatening haemoptysis.

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