Original article:

Management of haemoptysis during flexible bronchoscopy with cold saline vs Botropase—A prospective clinical study

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Abstract:

Introduction: Haemoptysis is frequently encountered in clinical practice and may be the presenting symptom of number of diseases. Although massive haemoptysis accounts for only 5-15% of episodes. Our aim was to control of haemoptysis during flexible bronchoscopy either mild or moderate by using cold saline vs botropase.

Material & methods: 24 cases of haemoptysis were observed during flexible bronchoscopy in one year duration from January 2015 to December 2015. Minimal or moderate haemoptysis were developed in process of bronchoscopy. On insertion and touching of friable growth or biopsy of intrinsic growth, before doing bronchoscopy.

Conclusion: Haemoptysis was the commonest complication during bronchoscopy. Minimal to moderate bleeding controlled by cold saline and botropase instillation but massive haemoptysis needs vascular embolisation or surgical resection.

Keywords: Haemoptysis, clinical practice

Introduction:

Haemoptysis is frequently encountered in clinical practice and may be the presenting symptom of number of diseases. Although massive haemoptysis accounts for only 5-15% of episodes (1). It should always be considered as a life threatening condition that warrants effective assessment and management. Massive haemoptysis is life threatening because of asphyxiation from flooding of central airways with blood (2). We usually do rigid bronchoscopy to control bleeding management. But flexible bronchoscopy procedure, when we do any biopsy, it will lead to bleeding either minor or moderate. Such bleeding is controlled by cold saline instillation or botropase instillation. We made a study which is best drug to control immediate bleeding, either cold saline or botropase and transamenic acid or both. We declared the study, combination of cold saline and botropase is best choice for haemostatic. Our aim was to control
heamoptysis during flexible bronchoscopy either mild or moderate by using cold saline vs botropase.

**Material & methods:**

24 cases of heamoptysis were observed during flexible bronchoscopy in one year duration from January 2015 to December 2015. Minimal or moderate heamoptysis were developed in process of bronchoscopy. On insertion and touching of friable growth or biopsy of intrinsic growth, before doing bronchoscopy, we did bleeding time, clotting time and prothombin time to rule out any bleeding disorders. Instillation of cold saline at site of bleeding was the usual procedure which control bleeding. If bleeding was persistent then we added inj.botropase 1ml through bronchoscope. Sometimes if bleeding contused then we added inj.transametic acid intravenously 5ml bolus dose. Whenever it is bleeding we should keep tip of bronchoscope wedging the bleeding site to apply compression for 1 or 2 minutes. This will stop bleeding of small vessels. Again observe the site of bleeding for any spurting of bleeding. If bled was controlled then continued bronchoscopy. We observed 18 cases of minimal bleeding on bronchoscopy and 6 cases of moderate bleeding.

Total no. bronchoscopy cases: 30
Total no. of heamoptysis cases: 24
Minimal heamoptysis cases: 18
Moderate heamoptysis cases: 6
Massive heamoptysis cases: nil

**Discussion:**

Heamoptysis is a common complication with good prognosis in most cases. Heamoptysis during flexible bronchoscopy was a known complication seen in our study where 24 cases out of 30 were having bleeding. Complication of massive heamoptysis were not encounter during bronchoscopy. Massive bleeding cases required immediate vascular embolisation or surgical resection.

**Conclusion:**

Heamoptysis was the commonest complication during bronchoscopy. Minimal to moderate bleeding controlled by cold saline and botropase instillation but massive heamoptysis needs vascular embolisation or surgical resection.

**References:**

