Communications to the Editor

Communications for this section will be published as space and priorities permit. The comments should not exceed 350 words in length, with a maximum of five references; one figure or table can be printed. Exceptions may occur under particular circumstances. Contributions may include comments on articles published in this periodical, or they may be reports of unique educational character. Specific permission to publish should be cited in a covering letter or appended as a postscript.

Bilateral Dislocations of the Temporomandibular Joint Complicating Fiberoptic Bronchoscopy

To the Editor:

A recent communication to this journal described subluxation of the temporomandibular joint occurring as a complication of transoral fiberoptic bronchoscopy,1 and in a separate communication a similar complication following transoral fiberoptic gastroscopy.2 This report describes bilateral dislocations of the temporomandibular joints occurring in an elderly patient after an otherwise uneventful and short bronchoscopic examination.

CASE REPORT

An 84-year-old caucasian woman was admitted for investigation of cough, purulent sputum production and a persistent atelectasis of the lingula. A daughter-in-law had been treated for active renal tuberculosis five years previously, but otherwise her history was unremarkable. Bronchoscopic examination was advised to rule out active pulmonary tuberculosis or an endobronchial lesion involving the lingular bronchus. The patient fasted ten hours and received premedication with atropine sulfate (0.4 mg) and morphine sulfate (5 mg) 30 min prior to endoscopic examination. After local anesthesia was administered with four percent lidocaine solution, an Olympus B4 bronchoscope was introduced through a plastic mouthpiece. Endoscopic findings revealed only purulent secretions in the left upper and lingular bronchi, and the entire endoscopic examination lasted 30 min. Approximately 90 min following bronchoscopy, the patient complained of nausea, difficult speech, inability to retract her tongue and difficulty closing her mouth. X-ray examination confirmed a clinical impression of bilateral dislocation of the temporomandibular joint with no associated fracture. Manual reduction was achieved uneventfully. The patient denied any previous history of dislocation of the temporomandibular joints.

DISCUSSION

Dislocation of the temporomandibular joint may occur following trauma to the mandible, sudden wide opening movements of the mouth, prolonged wide opening of the mouth during dental procedures, or extreme capsular laxity in chronic subluxation of the temporomandibular joint.3 Dislocation of the temporomandibular joint following transoral fiberoptic bronchoscopy or gastroscopic examination is an infrequent occurrence. Previously cited authors have suggested that prolonged bronchoscopic procedures (their cases were of 50 and 60 min duration) may predispose to the development of subluxations of the temporomandibular joint and suggest that this may be prevented by reducing the time of the procedure to 30 to 40 min.1 Our patient underwent a fiberoptic bronchoscopic study of only 30 min duration. A factor in the development of the dislocation of the temporomandibular joints in this patient may be related to the patient's age, and illustrates that elderly patients may develop dislocation of the temporomandibular joints even when the procedure is of short duration. With an increasingly aged population who are likely to come to transoral endoscopic procedures, this complication should be considered in any patient who complains of pain about the jaw or difficulty in swallowing or speaking following fiberoptic bronchoscopic or gastroscopic study.

REFERENCES


Keeping Up at Rounds

To the Editor:

Rounds can be a physically demanding affair, especially when patients to be seen are scattered throughout the hospital. This entails having to climb stairs, as elevators in hospitals are notoriously slow or small. Stair climbing during rounds can be a ritual of sort. The group either moves en masse, blocking the stairwell, or in a line strung out like Sherpas on a climb of Mt. Everest. The staff person in front acting as the pace setter is the problem. People climb stairs differently, taking one or two steps at a time and going either slowly or quickly. The dilemma is whether one method is advantageous over the other.

To get some insight and practical information about this question, I set up a comparative study. Using a portable gas collection bag to determine VO₂ I enlisted 11 male subjects (physicians and respiratory technicians) to climb five flights of stairs. This was done both over 1 min and as quickly as possible taking either one step or two steps at a time with a standard rest period between. VO₂ was determined using gas collected over a total of 2 min.

VO₂ showed that, for the 1 min climb, VO₂ was greater when taking two steps at a time (p<.025, paired t-test). For the 1 min, two-step climb or either step during the rapid climb there was no difference in VO₂. There was no correlation with the height of the subjects. For the rapid climb, the time (mean ± SD) for one-step vs two-steps was 31.4 ± 3.6 sec and 24.3 ± 4.2 sec respectively, significant at p<.0001. The improvement in time was correlated with the subjects' height (r = 0.67, p<.05).

I believe this indicates that, among medical housestaff: 1) climbing stairs quickly, by either method, or slowly two steps at a time, cost more energy than going slowly at one step for persons of any height; 2) climbing stairs quickly at two steps at a time vs one step saves a mere few seconds without any energy saving; and
3) taller persons can climb stairs faster
Beware of the tall staff person who wants to do rounds quickly.

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REFERENCE

Hemomediastinum after Transbronchial Needle Aspiration

To the Editor:

Complications are rarely reported after fiberoptic transbronchial needle aspiration (TBNA). To date, Wang has described only two pneumothoraces and one pneumomediastinum resulting from this procedure. Reports of bleeding consist only of a few drops of blood at the TBNA site, despite the occasional aspiration of mediastinal great vessels.1,2 We report a case of pleuritic chest pain associated with hemorrhagic widening of the mediastinum after TBNA. A 49-year-old male smoker was admitted for evaluation of a lung nodule. As part of study protocol, he underwent bronchoscopic examination with TBNA of the aortic-pulmonic window, carina, and right paratracheal regions. The patient had no evidence of a bleeding diathesis. During TBNA, the aorta was inadvertently aspirated and shortly afterward, the patient experienced sharp retrosternal chest pain which resolved when he sat upright. Following the procedure, the patient had intermittent mild re-occurrences of pain lasting several hours at a time. A follow-up chest x-ray examination (Fig 1) demonstrated the loss of previously identified aortic-pulmonic landmarks.3 Within 48 hours, the patient had complete resolution of pain and chest x-ray abnormalities.

Approximately 120 patients have undergone TBNA at our institution and occasionally vascular structures, including the aorta, have been punctured. No clinically significant consequences have occurred as a result of these vascular aspirations. In our patient, mild pleuritic chest pain led to the discovery of a spontaneously resolving hemomediastinum, without clinical deterioration. However, had the patient been anticoagulated or suffered from a bleeding disorder, the outcome may not have been so benign. Consequently, we recommend the prudent review of clotting parameters prior to mediastinal TBNA. With this additional precaution, we continue to believe mediastinal TBNA to be a safe procedure with little risk of infection or significant bleeding.4

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Opinions expressed herein are solely those of the authors and do not necessarily represent the opinions of the Army Medical Department, Department of the Army, or the Department of the Defense

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3 Shure D, Fedullo P. The role of transcarinal needle aspiration in the staging of bronchogenic carcinoma. Chest 1984; 86:693-96

Elevated Adenosine Deaminase in Neoplastic Pleural Fluid

To the Editor:

Recent investigations have demonstrated that the determination of adenosine deaminase enzyme activity (ADA) is useful in the differential diagnosis of pleural effusions.1 ADA increases in the pleural effusions of tuberculosis, rheumatoid arthritis and empyemas.2 All authors seem to agree that ADA does not increase in neoplastic pleural effusions.3 4

We present the case of a 50-year-old patient admitted to hospital because of a massive left pleural effusion. Pleural fluid study results were as follows: pH 7.5, protein 6.68 g/dl, LDH 4,410 IU/L, glucose 10 mg/dl, and ADA 81 U/L (normal value<45 U/L). Aerobic, anaerobic, and Löwenstein medium culture results were negative with a mixed cellularity composed predominantly of lymphocytes and adenocarcinoma cells. Sputum examination showed adenocarcinoma cells, but we failed to demonstrate Mycobacterium tuberculosis in pleural fluid, pleural biopsy sample, bronchoaspirate sample and sputum. In spite of this, and in view of positive PPD intradermoreaction, triple tuberculostatic treatment was initiated. Pleural fluid characteristics were unchanged after one month of treatment and the patient died shortly afterwards.

Adenosine deaminase is the enzyme required for the conversion of adenosine and deoxyadenosine to inosine and deoxyinosine, respectively. The highest ADA levels are found in T-lymphocytes and an increase in ADA is related to a stimulation of cellular immunity. This is the rational explanation that various authors use to expound the increase in this enzyme's activity in tuberculous pleuresy, empyema and rheumatoid arthritis.