

migration, and wound healing. We use the term “modulate” to acknowledge the fact that wound healing is a complex process involving a number of factors and AQP-3 plays a role in its pathway. This modulation may be through direct or indirect activation/inhibition of downstream regulators. However, the precise mechanism describing this process to promote wound healing is unknown.

We believe that the presence of increased AQP-3 expression along the burn wound edge is a key finding that illustrates an increased wound healing response following tissue injury. We hope that this information will serve to promote other investigators to look further into the mechanism of AQP-3 on wound healing and its potential side effects. This includes its role in the formation of hyperplastic skin disorders and cancer. However, further investigations are necessary.

### Author contributions

R. Sebastian, E. Chau, P. Fillmore participated in the development of the study, conducted the experiments, assisted in interpreting the data and writing the manuscript. J. Matthews served in interpreting the data, determining its clinical significance and writing the manuscript. L.A. Price and V. Sidhaye assisted in the design of the experiments and determining its clinical significance. S. Milner oversaw all aspects of the study and obtained the grant that provided funding for the study.

### Disclosures

The authors report no proprietary or commercial interest in any product mentioned or concept discussed in this article.

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## Letter to the Editor

### Diagnostic bronchoscopy in sulfur mustard induced chronic respiratory disorders



Dear Editor,

We noted the valuable information in Kwon and colleagues' paper which we enjoyed [1]. However, we wish to add a few points based on our previous experience about the patients who exposed to sulfur mustard (SM).

SM was the most common chemical agents used in Iraq-Iran war (1980–1988), so that about 34,000 Iranian victims received care to alleviate SM complications at the end of the war [2,3]. There were a wide variety of disturbances among the patients such as respiratory, ocular and dermatologic problems [4–6]. SM can cause many early and late respiratory complications due to airway burns. Some of these problems are chronic bronchitis, bronchiolitis, bronchiectasis, bronchiolitis obliterans organizing pneumonia (a type of chronic pneumonia), thickening of the bronchial walls, COPD, asthma, emphysema, stenosis of large airways, pulmonary fibrosis, air trapping, chronic laryngitis and hoarseness of voice, rhinopharyngitis, paranasal sinuses involvement, laryngeal carcinoma, airway collapse and recurrent respiratory infections and acute respiratory failure [7].

Although there are many instruments to assess chronic respiratory disorders, fiber optic bronchoscopy is the best. Upon bronchoscopy, bronchial tree are full of the purulent material, from which the agents like *Staphylococcus aureus*, *Haemophilus influenzae* and *Pseudomonas aeruginosa* can be isolated. As the respiratory cilia are often destroyed, antibiotics will not inhibit the purulent sputum production. Mucus secretions are thick and sticky. Moreover, tissue necrosis and nonspecific granulation can be seen in histological study. Asthma should be considered in case of eosinophilia in

bronchoalveolar lavage. In suspicious cases with normal high resolution CT scanning and pulmonary function tests, lung surgical biopsy is useful [8].

There is a little evidence about virtual bronchoscopy in SM exposed victims. However, confirming Akhlaghpour et al's study [9], we believe that virtual bronchoscopy is an accurate and non-invasive tool to assess tracheobronchial tree and can be used as a complementary diagnostic modality in some specific patients.

### Authors' contributions

Dr. Payman Salamati designed the idea, drafted the paper and approved the version to be published.

Dr. Seyed mansour Razavi designed the idea, revised the paper and approved the version to be published.

### Conflicts of interests

None declared.

### Role of the funding source

None declared.

### Ethics committee approval

The paper has been prepared in accordance with the rules of the ethical review board of Tehran University of Medical Sciences.

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## Letter to the Editor

### Comment on “Comparison of virtual bronchoscopy to fiber-optic bronchoscopy for assessment of inhalation injury severity”



I have read Kwon et al.'s paper and learned a great deal [1]. I am going to offer some points about this invaluable article:

- (1) The authors in the introduction mentioned that “FOB is invasive and potentially hazardous in patients with hypoxia or laryngeal edema” on the basis of an article in 1975 that was published in *Surg Gynecol Obstet Journal*. FOB is a safe procedure and has minimal complications [2].
- (2) The aim of the study was to compare the utility of VB vs. FOB for grading smoke inhalation injury (SII) and airway narrowing assessment and initial diagnosis of SII. As well, the authors stated that FOB is a gold standard for SII assessment, and therefore they should compare a new diagnostic method (VB in this study) with gold standard (FOB in this study), but this comparison is not performed exactly. Authors in Table 2 showed Smoke inhalation injury scores by two methods but they did not present any statistical difference, however, it seems to differ significantly (SII score by FOB at 48 h was:  $4.55 \pm 1.83$  and by VB was  $1.94 \pm 1.29$ ).

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