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Letter in Reply: When the Air is the Complication

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Dear Editor,

We thank the authors for their letter,[1] regarding our case of cervical aerocele: a rare delayed complication of tracheostomy.[2]

Both of our cases were similar in terms of complications following an open tracheostomy. However, subcutaneous emphysema is a well-established sequelae as a result of an opening made into the anterior tracheal rings, which may induce leaking of air extra-luminally. If the skin closure is too tight, the subcutaneous emphysema is more likely to occur. There is no pathology needed, but aggravating factors like cough will worsen the condition. The position of the tracheostomy, size of tracheostomy, and surgical incision over the trachea can also be risk factors for the development of subcutaneous emphysema.

Compared to the cervical aerocele, this complication is extremely rare. It usually occurs later after the patient was decannulated, and the wound is already closed or healed. Cervical aerocele occurs due to outpouching of tracheal mucosa through the weakened tracheal wall, which is devoid of any cartilaginous ring.[3] The defect can be of various sizes, from a visibly clinically large one to a small hole, which can only be detected using radiological imaging. Chronic cough can be an aggravating factor by increasing the airflow through the trachea.

Management of both cases is also different. Subcutaneous emphysema post-tracheostomy is usually treated conservatively by loosening the suture. However, in the case of cervical aerocele, surgical intervention is required as a definitive treatment.

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