Answer: A. Cuff pressure and volume

MCQ Explanation:

The diagnosis of tracheal stenosis should be considered in patients with a recent history of intubation who are presenting with new or worsening respiratory symptoms. It is commonly misdiagnosed as an asthma or COPD exacerbation, which results in delayed diagnosis and treatment. Cuff pressure and volume are the most significant predictors of the development of post endotracheal intubation tracheal stenosis. When stenosis develops, it most often occurs at the level of the endotracheal tube cuff. The cuff exerts pressure on the tracheal wall, leading to mucosal ischemia and ulceration, and eventual development of chondritis and fibrosis. (1) Fortunately, the development of large volume, low-pressure cuffs has markedly reduced the occurrence of tracheal stenosis. (2) Other factors contributing to the development of stenosis include length of intubation, traumatic intubation, history of previous intubations, excessive corticosteroid use, advanced age, female gender, severe respiratory failure, severe reflux disease, autoimmune diseases, obstructive sleep apnea, and previous radiation therapy to the neck or chest. (1, 3, 4)

After diagnosis, this patient was continued on albuterol and ipratropium nebulizers and restarted prednisone with mild improvement of her symptoms. She later underwent tracheal resection with no complications.

References:

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