Necrotizing fasciitis of the cervical facial region is a rare condition. It is characterized by soft tissue destruction that is disproportionate to its clinical symptoms and signs, with rapid progression and a fatal outcome if not treated rapidly and radically. We report a rare case of cervical necrotizing fasciitis complicating acute epiglottitis in a diabetic patient.

A 65-year-old man visited our hospital with fever, sore throat, odynophagia and dyspnea, followed by erythematous swelling of his anterior neck for 1 day. He had a history of diabetes mellitus with irregular treatment. Upon arrival, his vital signs were as follows: heart rate 100/minute, body temperature 37.8°C, and blood pressure 100/65 mmHg. Physical examination revealed a warm erythematous soft tissue swelling with crepitus over the anterior neck region. Laboratory data showed a white blood cell count of 2,080/mm³, a platelet count of 40,000/mm³, and a blood sugar level of 369 mg/dL. The patient was sent for lateral cervical spine radiography, which revealed a swollen epiglottis shadow with a “thumb” sign, and extensive soft tissue swelling with numerous diffuse air bubbles at the anterior area of the neck (Figure), suggesting acute epiglottitis with cervical necrotizing fasciitis; this was confirmed by post-contrast computed tomography of the neck. The patient was intubated and ventilated for airway protection. Profound septic shock developed later despite the administration of the strong antibiotics cefepime and metronidazole. Unfortunately, the patient died the next day. Blood cultures yielded Streptococcus salivarius.

Cervical necrotizing fasciitis is a rare and potentially life-threatening bacterial infection. It is often odontogenic in origin. It spreads rapidly along the fascial planes and causes extensive tissue necrosis, which can lead to death. Because it is a rare and unsuspected clinical condition in its early stages, it is difficult to differentiate it from a normal deep neck infection or a peritonsillar abscess. Both group A Streptococci and a combination of aerobic and anaerobic bacteria have been implicated as causes. Anecdotal reports mention cases of cervical necrotizing fasciitis resulting from sinus infection, epiglottitis, insect bites, trauma, and previous surgery. Predisposing factors include diabetes mellitus, steroid therapy, arteriosclerosis, chronic renal failure, hypothyroidism, obesity, alcoholism, cancer, cirrhosis, drug abuse, old age, and poor nutrition.

Our patient initially showed evidence of acute epiglottitis confirmed by radiographic findings and...
direct visualization with a fibrotic laryngoscope. As a consequence, the spread of endogenous flora \((S.\ salivarius)\) from acute epiglottitis to the deep neck fascial space was enabled. Although numerous radiographic techniques are available to evaluate deep neck space infections\(^6\), computed tomography is readily available, inexpensive and can effectively identify the progression of the infection from inflammation to abscess\(^7\). Two cases of acute epiglottitis and subsequent necrotizing fasciitis of the head and neck have been reported previously in the English medical literature\(^8,9\). Airway management and early and adequate surgical intervention associated with empirical broad-spectrum antibiotics should be the treatment of choice, especially in elderly diabetic patients.

References