

Supplementary Material 2. Surgical procedure for tracheomalacia animal modeling

An animal was anesthetized 0.83 mL/kg of xylazine (23.32 mg/mL; Rompun, Bayer Korea, Seoul, Korea) and 0.83 mL/kg of ketamine (57.68 mg/mL; Yuhan Co., Seoul, Korea) via intramuscular injection, then the animal was placed in supine position after shaving and disinfection at its neck for surgery. A vertical incision along the trachea was made approximately 5 cm from the thyroid cartilage level. Strap muscles were reflected to the lateral side. After meticulous dissection, the trachea was exposed. Incision was made 2 cm long from below the cricoid cartilage on the middle of the tracheal cartilage, then the anterior tracheal cartilages were carefully detached from the inner submucosa layer and removed by approximately 180°. After confirming that the tracheal lumen was collapsed, insertion of a stent was performed. Then, the strap muscles were sutured using a 4-0 Coated Vicryl Plus Antibacterial suture (Ethicon US, Somerville, NJ, USA) and the skin incision was closed using a 3-0 Blue Nylon (AILEE, Busan, Korea).