Tracheal Stenosis by Brachiocephalic Artery Compression

Toshiyuki Mukai, Yujiro Hoshi, Toshihito Sahara and Rumi Ueha*

Department of Otolaryngology, The University of Tokyo, Tokyo, Japan

Keywords
Tracheal stenosis; Brachiocephalic artery compression; Tracheotomy

Clinical Image

A 77-year-old woman had been intubated for about two weeks following a stroke caused by right middle cerebral artery infarction. She was re-intubated owing to respiratory disorder after extubation, so that tracheotomy was required. Since her body mass index was 34.2, the tracheal structure was checked by computed tomography, and the tracheal compression by the brachiocephalic artery on the right side about 3.5 cm below the lower edge of the cricoid cartilage was revealed (Figure 1 and 2).

After tracheotomy, flexible fiberscope revealed the right anterolateral tracheal wall recessed inward by the brachiocephalic artery (Figure 3). To avoid the danger of developing a...
tracheoinnominate fistula following the use of a general tracheal cannula, we prepared and used a slender spiral-wire-reinforced silicone tracheostomy tube with an adjustable neck flange to ensure better fit in the proper position. Preoperative evaluation of the tracheal structure should be considered to avoid complications after tracheotomy.