PREOPERATIVE DIAGNOSES,Airway obstruction secondary to severe subglottic tracheal stenosis with foreign body in the trachea.,POSTOPERATIVE DIAGNOSES,Airway obstruction secondary to severe subglottic tracheal stenosis with foreign body in the trachea.,OPERATION PERFORMED,Neck exploration; tracheostomy; urgent flexible bronchoscopy via tracheostomy site; removal of foreign body, tracheal metallic stent material; dilation distal trachea; placement of #8 Shiley single cannula tracheostomy tube.,INDICATIONS FOR SURGERY,The patient is a 50-year-old white male with history of progressive tracheomalacia treated in the National Tennessee, and several years ago he had a tracheal metallic stent placed with some temporary improvement. However developed progressive problems and he had two additional stents placed with some initial improvement. Subsequently, he developed progressive airway obstruction and came into the ABC Hospital critical airway service for further evaluation and was admitted on Month DD, YYYY. He underwent bronchoscopy by Dr. W and found to have an extensive subglottic upper tracheal and distal tracheal stenosis secondary to metallic stent extensive granulation and inflammatory tissue changes. The patient had some debridement and then was hospitalized and Laryngology and Thoracic Surgery services were consulted for further management. Exploration of trachea, removal of foreign body stents constricting his airway, dilation and stabilization of his trachea were offered to the patient. Nature of the proposed procedure including risks and complications of bleeding,

infection, alteration of voice, speech, swallowing, voice changes permanently, possibility of tracheotomy temporarily or permanently to maintain his airway, loss of voice, cardiac risk factors, anesthetic risks, recurrence of problems, upon surgical intervention were all discussed at length. The patient stated that he understood and wished to proceed.,DESCRIPTION OF PROCEDURE,The patient was taken to the operating room, placed in the supine position. Following adequate monitoring by Anesthesia Service to maintain sedation, the patient's neck was prepped and draped in the sterile fashion. The neck was then infiltrated with 1% Xylocaine and 1000 epinephrine. A collar incision approximately 1 fingerbreadth above the clavicle, this was an outline incision, was carried out. The skin, subcutaneous tissue, platysma, subplatysmal flaps elevated superiorly and inferiorly. Strap muscles were separated in the midline, dissection carried down to visceral fascia. Beneath the strap muscles, there was dense inflammation scarring obscuring palpable landmarks. There appeared to be significant scarring fusion of soft tissue at the perichondrium and cartilage of the cricoid making the cricoid easily definable. There was a markedly enlarged thyroid isthmus. Thyroid isthmus was divided and dense inflammation, attachment of the thyroid isthmus, fusion of the thyroid gland to the capsule to the pretracheal fascia requiring extensive blunt sharp dissection. Trachea was exposed from the cricoid to the fourth ring which entered down into the chest. The trachea was incised between the second and third ring inferior limb in the midline

and excision of small ridge of cartilage on each side sent for pathologic evaluation. The tracheal cartilage externally had marked thickening and significant stiffness calcification, and the tracheal wall from the outside of the trachea to the mucosa measured 3 to 4 mm in thickness. The trachea was entered and visualized with thickening of the mucosa and submucosa was noted. The patient, however, was able to ventilate at this point a #6 Endo Tube was inserted and general anesthesia administered. Once the airway was secured, we then proceeded working around the #6 Endo Tube as well as with the tube intake and out to explore the trachea with ridged fiberoptic scopes as well as flexible fiberoptic bronchoscopy to the trach site. Examination revealed extrusion of metallic fragments from stent and multiple metallic fragments were removed from the stent in the upper trachea. A careful examination of the subglottic area showed inflamed and thickened mucosa but patent subglottis. After removal of the stents and granulation tissue, the upper trachea was widely patent. The mid trachea had some marked narrowing secondary to granulation. Stent material was removed from this area as well. In the distal third of the trachea, a third stent was embedded within the mucosa, not encroaching on the lumen without significant obstruction distally and this was not disturbed at this time. All visible stent material in the upper and mid trachea were removed. Initial attempt to place a #16 Montgomery T tube showed the distal lumen of the T tube to be too short to stent the granulation narrowing of the trachea at the junction of the anterior two

thirds and the distal third. Also, this was removed and a #8 Shiley single cannula tracheostomy tube was placed after removal of the endotracheal tube. A good ventilation was confirmed and the position of the tube confirmed it to be at the level just above the metallic stent which was embedded in the mucosa. The distal trachea and mainstem bronchi were widely patent. This secured his airway and no further manipulation felt to be needed at this time. Neck wound was thoroughly irrigated and strap muscles were closed with interrupted 3-0 Vicryl. The skin laterally to the trach site was closed with running 2-0 Prolene. Tracheostomy tube was secured with interrupted 2-0 silk sutures and the patient was taken back to the Intensive Care Unit in satisfactory condition. The patient tolerated the procedure well without complication.