Clinical case 6: Rigid bronchoscopy with laser resection and stent for esophageal cancer invading the trachea

FF is a 70 year old truck driver with a history of severe rheumatoid arthritis, dysphagia, and shortness of breath. He has been recently diagnosed with esophageal cancer and has a gastric feeding tube in place. He has not yet had therapy because increasing dyspnea prompted flexible bronchoscopy which revealed an exophytic mass with necrosis from the posterior wall of the trachea extending along a distance of 3 cm, beginning 5 cm above the main carina and ending 7 cm below the vocal cords (see photo). Physical examination reveals limited range of the neck motion, severe rheumatoid changes of the hands. The patient has no teeth and wears dentures. Oxygen saturation is 90% on 2 liters nasal canula. Karnofsky performance score is 70. Laboratory data are normal. Chest radiograph and computed tomography scan show a large esophageal mass with extrinsic compression of the mid trachea causing 80% obstruction. Medical history also includes emphysema with an FEV1 of 40% predicted. The patient is accompanied by his elderly wife who hopes that her husband will live until their 50th wedding anniversary in four months.

After addressing items of the four boxes, please consider the following:

1. List three potential complications of rigid intubation. How might the limited range of neck motion affect your decisions?
2. What are the benefits and dangers of laser resection in this case?
3. If you cannot intubate the patient with the rigid bronchoscope what will you do?
4. What treatment would you recommend for the patient’s esophageal cancer? Why?