Obstructing Endobronchial Cancer: Dyspnea, photosensitivity reaction, hemoptysis, pyrexia, cough, pneumonia.

Superficial Endobronchial Tumors: Exudate, photosensitivity reaction, bronchial obstruction, edema, bronchostenosis.

High-Grade Dysplasia in Barrett's Esophagus: Photosensitivity reaction, esophageal stenosis, vomiting, chest pain, nausea, pyrexia, constipation, dysphagia, abdominal pain, pleural effusion, dehydration.

Other photosensitizing agents may increase the risk of photosensitivity reaction. Because of the potential for serious adverse reactions in the breastfed infant, advise patients that breastfeeding is not recommended during treatment with PHOTOFRIN and for 5 months after the last dose.

Please see accompanying full Prescribing Information for PHOTOFRIN® (porfimer sodium) for Injection at: www.photofrin.com

FOR MORE INFORMATION about PHOTOFRIN®, or if there are any questions regarding the information provided, visit www.photofrin.com or please contact the Medical Information Department at 1-866-248-2039. You are encouraged to report negative side effects of prescription drugs to the FDA. Visit www.fda.gov/medwatch, or call 1-800-FDA-1088.

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Adenocarcinoma Consistent With **Recurrent Lung Cancer**

Courtesy of Osita I. Onugha, MD, MBA

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Patient History

Sixty-eight-year-old male with a history of lung cancer, coronary artery disease (CAD), hoarseness, and neuropathy underwent a right video-assisted thoracoscopic surgery (VATS) with subsequent conversion to thoracotomy and lower lobectomy, upper lobe wedge, and bronchoplasty for non-small cell adenocarcinoma of the lung. After one year, the patient developed consolidation and narrowing of the right mainstem bronchus and subsequently presented with persistent hemoptysis and dyspnea and was admitted to a local hospital.

Examination

Physical examination showed stable vital signs, although tachypnea was present. While the patient had no lymphadenopathy, inspiratory and expiratory stridor was present. Bronchoscopy revealed endobronchial obstruction and extraluminal compression, and pathology indicated recurrent adenocarcincma.

Diagnostic Evaluation

A computed tomography (CT) scan of the chest showed a large right hilar mass with invasion into the right rmainstem bronchus with near-complete obstruction (Figure 1). Additionally, a significant number of bilateral lung metastases were present. A biopsy was performed, and pathology confirmed adenocarcinoma consistent with recurrent lung cancer.



Figure 1 – Bronchoscopy (left) and chest CT (right) pretreatment.







See important prescribing and safety information for PHOTOFRIN® (porfimer sodium) for Injection on pages 3 and 4.

Course of Treatment

Because of the patient's highly obstructing endobronchial lesion and prior cryoablation failure, he was offered photodynamic therapy (PDT). He received a 2 mg/kg IV infusion of PHOTOFRIN® (porfimer sodium) for Injection. Forty-eight hours later, the obstructing tumor within the right mainstem bronchus was treated using a 5-cm diffusing fiber at an energy setting of 200 Joules/cm for a total of 8 minutes and 20 seconds for a nominal wavelength of 630 nm ±3 nm (Figure 2). Two days later, the patient underwent a bronchoscopy in which the tumor in the right mainstem bronchus was debrided. The right mainstem was 100% patent.



Figure 2 – Bronchoscopy with catheter during PHOTOFRIN® (porfimer sodium) for Injection treatment.

The information contained in this case study has been supplied by the medical professional whose name appears here. The advice, opinion, statements, materials and other information expressed and contained in this case study are from the authors and reflect their personal experience with the specific patient. Results may vary. Pinnacle Biologics, Inc. makes no claim that similar treatment will result in a similar outcome.

PHOTOFRIN® (porfimer sodium) for Injection Indications

Palliation of patients with completely obstructing esophageal cancer, or of patients with partially obstructing esophageal cancer who, in the opinion of their physician, cannot be satisfactorily treated with Nd:YAG laser therapy.

Treatment of microinvasive endobronchial non-small cell lung cancer (NSCLC) in patients for whom surgery and radiotherapy are not indicated.

Reduction of obstruction and palliation of symptoms in patients with completely or partially obstructing endobronchial NSCLC.

Ablation of high-grade dysplasia (HGD) in Barrett's esophagus (BE) patients who do not undergo esophagectomy.

Important Safety Information About PHOTOFRIN® (porfimer sodium) for Injection

PHOTOFRIN® should not be used in patients with porphyria, existing tracheoesophageal or bronchoesophageal fistula, tumors eroding into a major blood vessel, emergency treatment of patients with severe acute respiratory distress caused by an obstructing endobronchial lesion because 40 to 50 hours are required between injection of PHOTOFRIN® and laser light treatment, and esophageal or gastric varices or esophageal ulcers >1 cm in diameter.

IMPORTANT WARNINGS AND PRECAUTIONS USING PHOTOFRIN® INCLUDE:

Gastroesophageal Fistula and Perforation: Do not initiate PHOTOFRIN with photodynamic therapy (PDT) in patients with esophageal tumors eroding into the trachea or bronchial tree or bronchial wall. Pulmonary and Gastroesophageal Hemorrhage: Assess patients for tumors eroding into a pulmonary blood vessel and esophageal varices. Do not administer light directly to an area with esophageal varices. High-Grade Dysplasia (HGD) in Barrett's Esophagus (BE): After treatment of HGD in BE, conduct endoscopic biopsy surveillance every 3 months, until 4 consecutive negative evaluations for HGD have been recorded. Photosensitivity and Ocular Photosensitivity: Observe precautions to avoid exposure of skin and eyes to direct sunlight or bright indoor light for at least 30 days. Instruct patients when outdoors to wear dark sunglasses which have an average light transmittance of <4% for at least 30 days and until ocular sensitivity resolves. Use Before or After Radiotherapy: Allow 2-4 weeks between PDT and subsequent radiotherapy. Chest Pain: Substernal chest pain can occur.

Airway Obstruction and Respiratory Distress: Administer with caution to patients with tumors in locations where treatment-induced inflammation can obstruct the main airway. Monitor patients closely between the laser light therapy and the mandatory debridement bronchoscopy for any evidence of respiratory distress. Esophageal Strictures: Esophageal strictures can occur. Hepatic and Renal Impairment: Patients with hepatic or renal impairment may need longer precautionary measures for photosensitivity.

Thromboembolism: Thromboembolic events can occur. Embryo-Fetal Toxicity: May cause embryo-fetal toxicity. Advise females of reproductive potential of the potential risk to a fetus and to use effective contraception.

MOST COMMON ADVERSE REACTIONS reported during clinical trials (>10% of patients) are:

Esophageal Cancer: Anemia, pleural effusion, pyrexia, constipation, nausea, chest pain, pain, abdominal pain, dyspnea, photosensitivity reaction, pneumonia, vomiting, insomnia, back pain, pharyngitis.