after PDT (Fig. 1 ; lesion 10).

Case 3 : 73 years old man. The chest radiograph abnormality was noted when the patient referred from another hospital complaining of cough. CT scan showed a tumor in the right upper lobe, right upper lobe resection was done with intraoperative diagnosis of squamous cell carcinoma (pT2N0M0). In addition, upon receiving postoperative follow up bronchoscopy flat elevated lesion was pointed out to the entrance of the right central portion B^6. Fluorescence defect was observed during SAFE-3000 of the same lesion (Fig. 4A, B). The result of the biopsy was squamous cell carcinoma. PDT was performed using porfimer sodium and excimer laser (300 J). Neoplastic lesions in the white light bronchoscopy 5 months after treatment had disappeared, SAFE-3000 showed fluorescence defect around B^6 (Fig. 4C, D). The biopsy from fluorescence loss site showed basement membrane thickening. 14 months after treatment, SAFE-3000 showed fluorescence in the treated area (Fig. 4E, F). During SAFE-3000 follow-up, fluorescence loss was observed after PDT, followed by normal fluorescence (Fig. 1 ; lesion 4).

Case 4 : 74 years old man. Abnormal right lung shadow was found during preoperative evaluation for orthopedic lumbar compression fracture surgery. Detailed examination showed a large tumor about 5 cm in the right middle lobe. Another lesion was found during bronchoscopy in the right upper lobe bronchus ($rtB^{1,2}$ spur). Biopsy result was squamous cell carcinoma. Middle lobectomy and lymph node dissection (ND2a) was performed (pT2N0M0) for middle lobe lesion. PDT was performed for the lesion of the right upper lobe bronchus using porfimer sodium and Excimer Dye Laser (250 J). Residual lesion biopsy which was taken 8 months after treatment, showed recurrence. The second PDT (400 J) was performed. No recurrence has been noticed for 40 months. SAFE fluorescent is still missing (Fig. 5A, B). The histopathology examination showed tissue fibrosis (Fig. 5C). SAFE-3000 follow-up showed normal fluorescence after PDT, followed by fluorescence loss due to local recurrence. After second PDT, fluorescence is still missing due to fibrosis (Fig. 1 ; lesion 5).

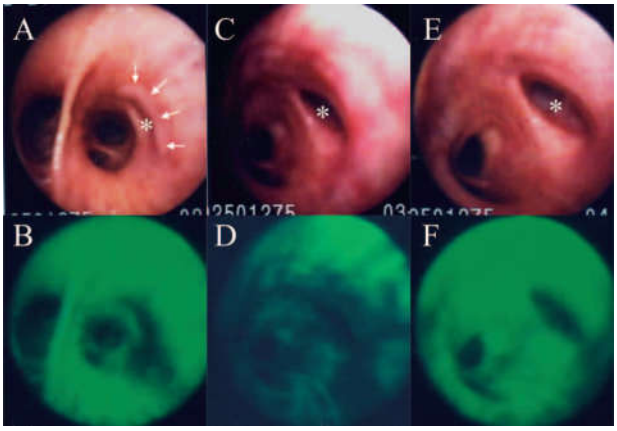

Figure 4. Bronchoscopic findings of the case 3. A : White light bronchoscopic finding of pre-PDT showed flatly elevated lesion prior to the right B^6. B : Fluorescence bronchoscopic finding of A showed fluorescence defect at the site of the lesion. C : White light bronchoscopic finding at 5 months after PDT showed no tumorous lesion. D : Fluorescence bronchoscopic finding of C showed fluorescence defect around the right B^6. E : White light bronchoscopic finding at 14 months after PDT showed no tumorous lesion. D : Fluorescence bronchoscopic finding of E showed no fluorescent defect around the right B^6. *Right B^6. Arrows show the border of the tumor.

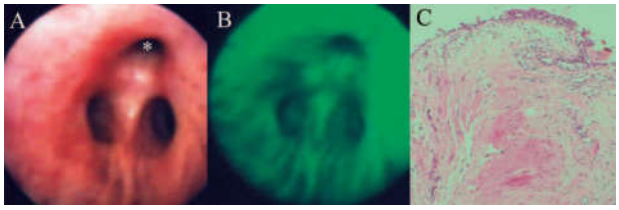

Figure 5. Bronchoscopic findings of the case 4. A : White light bronchoscopic finding at 40 months after PDT showed no tumorous lesion at the right upper bronchus where there had been a tumor. B : Fluorescence bronchoscopic finding of A showed fluorescence defect between the right B^1 and B^2 or B 3 . C : Histopathological finding of biopsy specimen at the site of fluorescence defect showed no malignant change but fibrotic change in the submucosa. *Right B 1.

Case 7 : 71 years old man. The patient had received medical treatment for emphysema at age of 50. Home oxygen therapy was introduced at the age of 65. The patient underwent regular bronchoscopy. Elevated lesion was seen during inspection of $Lt.B^3$ at the age of 71. The result of biopsy was squamous cell carcinoma. Because of severe emphysema and pulmonary hypertension, surgery was not considered. The PDT was performed by porfimer sodium and excimer laser (400 J). Evidence of recurrence was observed 12 months after treatment. The PDT was performed again using talaporfin sodium and laser (70 J). The tumor showed no obvious alteration in white light bronchoscopy 3 months after the second treatment. SAFE fluorescence loss was observed in the treated area (Fig. 6A, B). The biopsy showed bronchial epithelial hyperplasia and malignant findings. Bronchoscopy showed a recurrence 8 months after the second treatment (Fig. 6C). After PDT, SAFE-3000 showed fluorescence loss