

Combination of photodynamic therapy and surgery for multiple primary lung cancer

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BACKGROUND: With improvements in diagnostic and therapeutic methods, multiple primary lung cancers are being reported with greater frequency. However, it is often difficult to perform surgery while maintaining lung function especially in elderly patient. Photodynamic therapy (PDT) is a good therapeutic modality for multiple lung cancer in maintaining respiratory function. The aim of this study is to evaluate the efficacy of treatment for multiple primary lung cancer utilizing a combination of PDT and surgery.

PATIENTS AND METHODS: Between January 1979 and March 2008, 59 patients with multiple primary lung cancer were treated with a combination of PDT and surgery in our institution. PDT was applied for central type early-stage lesions and surgery was performed for advanced cancer. 23 of these were synchronous cases and the rest were metachronous. **RESULTS:** In 53 synchronous lesions, PDT was performed in 29 early-stage lesions and complete remission was obtained in 24. Surgery was performed in 23 lesions of advanced cancer. 5 patients died due to the original disease and 10 due to other diseases. 36 patients with 80 lesions were metachronous cases. Regarding stage 0 and 1A lesions, 33 lesions resulted in complete remission with PDT, while 22 lesions were treated with surgery. As a result, 10 patients died within 5 years, however, only 3 deaths were due to the original disease. **CONCLUSION:** Combination therapy of PDT and surgery can be an effective modality for the treatment of multiple primary lung cancers while preserving lung function.