

Treating bullous lung disease with Holmium YAG laser in conjunction with fibrin glue and DEXON(TM) mesh.

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Abstract:

Background and Objective: Holmium YAG (Ho:YAG) laser energy is highly absorbed by water, and this property is useful to uniformly ablate pulmonary bullae. The current study summarizes the data of a 39-month follow-up of patients treated for bullae with a Ho:YAG laser. Study Design/Materials and Methods: We used a Ho:YAG laser from August 1994 to April 1997 to treat small pulmonary bullae in 50 patients. For the first five patients, Ho:YAG laser ablation was followed by resection for histological assessment. In the next six patients, fibrin glue was applied following bullae ablation with the Ho:YAG laser. In all subsequent patients, a DEXON(TM) (polyglycolic acid) mesh patch soaked in fibrin glue was employed after ablation. Results: From the six patients receiving only the fibrin glue following laser ablation, delayed pneumothorax developed in one patient. In the subsequent 39 patients patched with DEXON(TM) mesh soaked in fibrin glue, none encountered delayed pneumothorax. Conclusion: The combined use of fibrin glue and Dexon(TM) mesh with the Ho:YAG laser may be an effective technique for treating bullous lung disease.