



Laryngectomy-Free Survival after Salvage Partial Laryngectomy: A Systematic Review and Meta-analysis

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Introduction

Primary non-surgical treatment for early glottic cancer is acceptable and widespread. However, up to 40% of these patients will fail treatment. Following radiotherapy (RT) to the larynx, disease recurrence will most commonly appear in the first 24 months. Surgery is the mainstay of salvage treatment, and partial or total laryngectomy are the practical options. Salvage partial laryngectomy (SPL) has the attractive advantage of preserving function, with total laryngectomy continuing to remain the last resort. We aim to determine the efficacy of SPL in preventing TL following failed RT.

Methods

A meta-analysis of all studies analyzing the outcomes of SPL after RT. A total of 15 studies that included 323 suitable patients were analyzed in this meta-analysis. The rate of laryngectomy free survival (LFS) following SPL was calculated. A Sub-group analysis for open and trans-oral SPL was performed.

Results

The overall rate for LFS following SPL was 81.2% (fixed effects model range: 75.7%-86.8%) (Figure 1). Most (96.8%) of all cases necessitating TL following SPL were due to local failures, and 3.2% to poorly functional larynxes. A subgroup analysis for LFS following open SPL yielded a rate of 90.4%. (Figure 2). A subgroup analysis for LFS following transoral SPL yielded a rate of 78.6% (Figure 3).

Conclusions

A high rate of LFS is to be anticipated in well-selected SPL patients after RT failure. Head and neck surgeons should choose the therapeutic approach based upon tumor extent, surgeon experience, and patient status.

Figure 1. Rate of Laryngectomy-free Survival, All patients

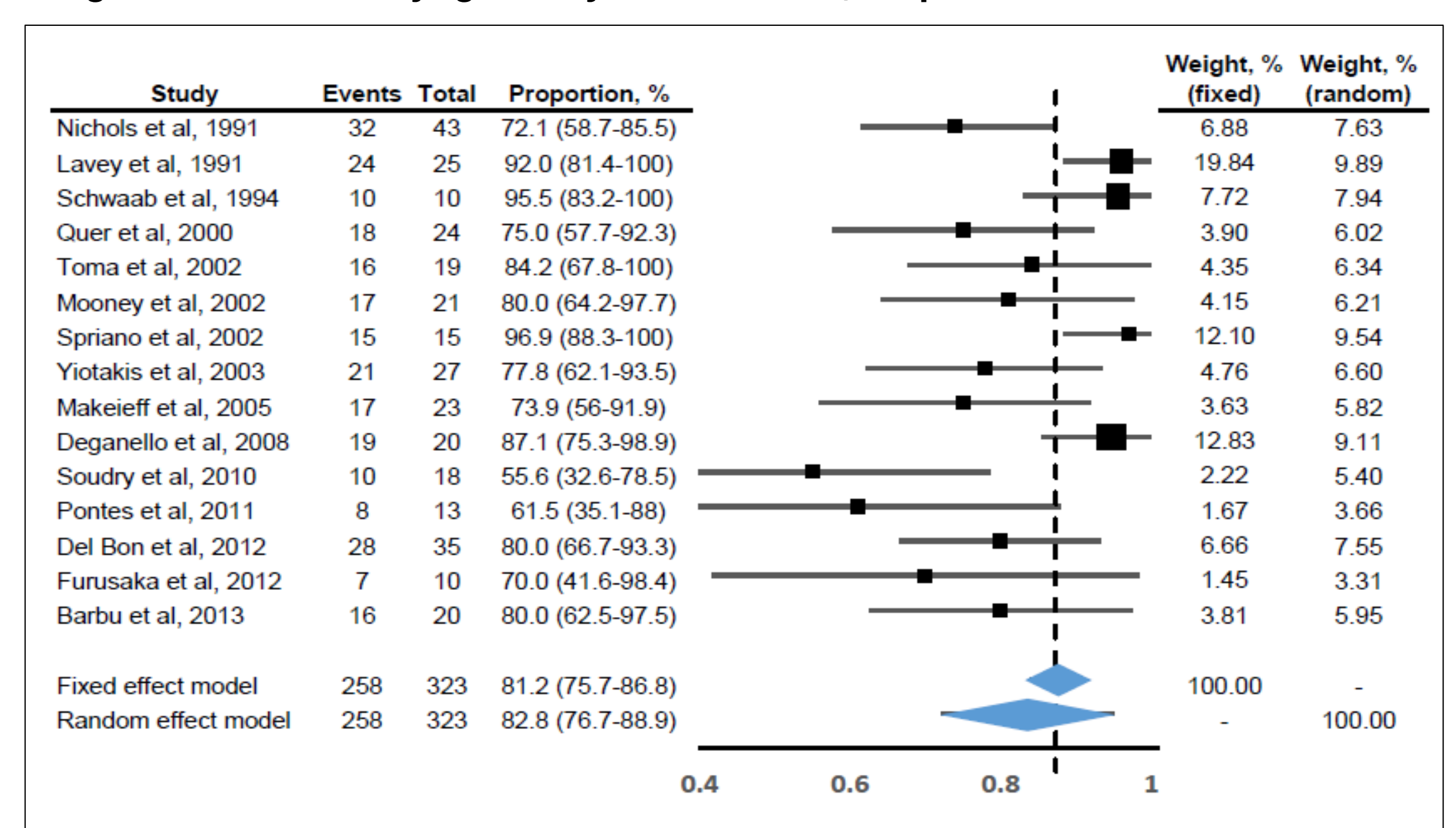


Figure 2. Rate of Laryngectomy-free Survival, Only Salvage Open Laryngectomy

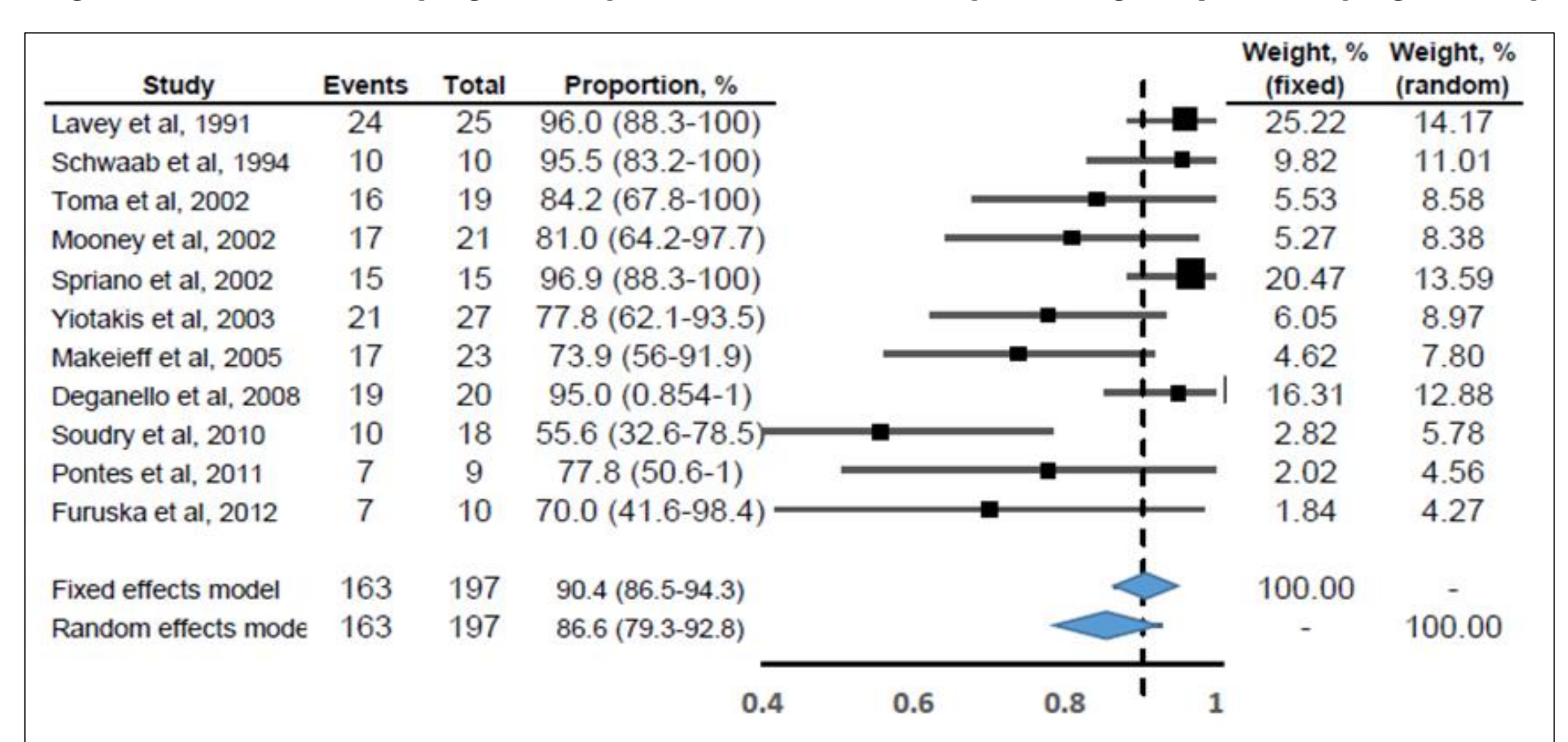


Figure 3. Rate of Laryngectomy-free Survival, Only Salvage Transoral Laryngectomy

