





SEGMENTECTOMY VERSUS LOBECTOMY IN SMALL-SIZED PERIPHERAL NSCLC: RESULTS FROM CALGB140503

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In CALGB 140503 (Alliance), patients with peripheral cT1aN0 NSCLC (AJCC 7th) were randomly assigned to either lobar (LR) or sublobar resection (SLR). The choice of sublobar resection was at the discretion of the surgeon. The topline results of the trial showed that after SLR, disease-free survival, the primary endpoint, was non-inferior to that after lobectomy. Overall (OS) and recurrence-free survival (RFS) were similar between arms. In 2024, we reported the differences in DFS, OS and RFS between LR, segmental (SR) and wedge resections (WR). We also reported differences between WR and SR in surgical margins, rates of locoregional recurrence (LRR) and expiratory flow rates at 6 months postoperatively.

A total of 362 patients had LR, 131 had SR and, 204 had WR. Basic demographic and clinical and pathological characteristics were similar between all three groups. Five-year DFS was 64.7% after LR [95% CI; 59.6-70.1%], 63.8% after SR [95% C; 55.6 – 73.2%] and 62.5% after WR [95% CI; 55.8 – 69.9%] (Log rank, p = 0.888). Five-year OS was 78.7% after LR, 81.9% after SR and 79.7% after WR (Log rank, p = 0.873). Five-year RFS was 72% after LR, 68.5% after SR and 69.8% after WR (Log rank, p = 0.709). LRR occurred in 12% after SR and 14% after WR (p=0.295). At 6 months postoperatively, the median reduction in % FEV1 was 5% after WR and 3% after SR (p=0.930)

We concluded that in this large, randomized trial, LR, SR and WR were associated with similar survival outcomes. Although LRR was numerically higher after WR compared to SR, the difference was not clinically meaningful. There was no significant difference in the reduction of FEV1 between the SR and WR groups.