Bevacizumab Plus Pemetrexed Versus Pemetrexed Alone as Maintenance Therapy for Patients With Advanced Nonsquamous Non-Small-cell Lung Cancer: Update From the Swiss Group for Clinical Cancer Research (SAKK) 19/09 Trial

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BACKGROUND

Pemetrexed and bevacizumab as single agents have been approved for maintenance therapy after platinum-based induction in patients with advanced nonsquamous non-small-cell lung cancer. It is currently unknown whether bevacizumab plus pemetrexed is superior to pemetrexed alone.

PATIENTS AND METHODS

We conducted a nonrandomized phase II trial with 2 sequential cohorts. In the first cohort, 77 patients were treated with 4 cycles of cisplatin, bevacizumab, and pemetrexed every 3 weeks, followed by bevacizumab plus pemetrexed maintenance until progression. In the second cohort, we treated 52 patients without bevacizumab, using maintenance with pemetrexed alone. Progression-free survival (PFS), overall survival (OS), overall response rate (ORR), adverse events, and the treatment costs of the 2 cohorts were compared.

RESULTS

The median PFS from the time of registration was 6.9 months in cohort 1 and 5.6 months in cohort 2. The ORR was 62.3% in cohort 1 and 44.2% in cohort 2. The PFS (hazard ratio, 0.7; 95% confidence interval [CI], 0.5-1.0; P = .041) and ORR (odds ratio, 2.1; 95% CI, 1.0-4.3; P = .049) were better in cohort 1 than in cohort 2. No OS difference was found (hazard ratio, 1.0; 95% CI, 0.7-1.6; P = .890) after a median follow-up period of 47 months for cohort 1 and 27 months for cohort 2. The rate of grade ≥ 3 adverse events was greater in cohort 1. The treatment costs per patient were on average 1.4 times greater for cohort 1.

CONCLUSION
The addition of bevacizumab increased the ORR and PFS, but not OS, in our nonrandomized trial. Furthermore, the addition of bevacizumab was associated with greater toxicity and higher costs.