**Aim:** This retrospective study compared the efficacy of anti-EGFR antibody and anti-VEGF antibody as first-line treatment for mCRC.

**Methods:** Between January 2008 and December 2013, 34 patients with mCRC were treated as first-line treatment with anti-EGFR antibody or anti-VEGF antibody in our institute. We investigated retrospectively the effectiveness of those treatments by using the medical records.

**Results:** Eleven patients were treated with anti-EGFR antibody (Group E), 23 patients with anti-VEGF antibody (Group V). Response rate was 72% in Group E, and 34% in Group V (p = .045). Median percentage of maximal tumor shrinkage observed at the nadir compared with baseline were 55% in Group E, and 20% in Group V (p = .066). Median time to treatment failure (TTF) were 6.1 months in Group E and 5.9 months in Group V (p = .254), and median overall survival (OS) were 28.9 months and 20.6 months (p = .336), respectively.

**Conclusion:** This study is a retrospective study which includes several biases. Anti-EGFR antibody therapy might have better effect of tumor shrinkage. There was no significant difference for TTF and OS in both treatments.