The aim of the current investigation is to assess the efficacy of different preservatives ingredients of different expectorant cough syrups manufactured by different pharmaceutical companies by comparing the growth of five microorganisms of known quanta of *S. aureus*, *E. coli*, *P. aeruginosa* and *C. albicans*. The microorganisms were inoculated into syrup A (glycerol and propylene glycol), syrup B (propylene glycol and glycerin), syrup C (glycerin, propylene glycol and butyl paraben), syrup D (methyl paraben and propylparaben) and normal saline as a control. All microorganisms were taken from standard stock cultures and incubated for 24 h. Growth of microorganisms into syrup was compared by counting the CFUs from a subculture of inoculated syrup at zero, 3, 6, 12, 24 and 48 h intervals. The data showed that all the combinations of the preservatives in the four studied cough syrups behaved similarly in term of antimicrobial efficiency. The findings suggested that the preservatives mixtures of propylene glycol with glycerol or with glycerin or with butyl paraben preservatives as well as methyl paraben with propylparaben are acceptable clinically and have considerably antimicrobial activity against infectious bacteria during the 48 h studied period.
AIM: This study is aimed at conducting a program for two different anesthetic methods used during a spinal fusion surgery to ensure better intra-operative hemodynamic stability and post-operative pain control. METHODS: A prospective, randomized, double blind study in patients scheduled for spinal fusion surgery, who were randomly allocated to two groups, G1 and G2, (n = 15 per group), class I-II ASA, was carried out. Both groups received pre-operatively midazolam, followed intra-operatively by propofol, sevoflurane, atracurium, and either remifentanil infusion 0.2 microg/kg/min (G1), or the same dose of remifentanil infusion and low doses of ketamine infusion 1 microg/kg/min (G2) anesthetics, antidote medication and post-operative morphine doses. HR, MAP, vital signs, surgical bleeding, urine output, duration of surgery and duration of anesthesia were recorded. In a 24-h recovery period in a post-anesthesia care unit (PACU) the recovery time, the first pain score and analgesic requirements were measured.