Accurate management of pain is one of the most important challenges of health care providers and one of the most important concerns of the patients in postoperative period. 160 patient undergoing elective laparoscopic cholecystectomy were divided into 2 groups (60 female in each group and 15 male for each). The first group received Tramadol 1.5 mg per kg intravenously at recovery and then every 8 hours for post operative analgesia. The second group received Paracetamol 5mg per kg intravenously then the same dose every 8 hours. In this study we found that there is no significant differences in behavioral pain score (p>0.05) between groups treated with Paracetamol and those treated with Tramadol at recovery period, first hour observation and 8 hour observation. while there was significant decrease in behavioral pain score observation (p<0.05) at the hour 24 of patients treated with Tramadol and there were significant decrease in behavioral pain score (p<0.05) between male treated with Tramadol and those treated with Paracetamol at recovery period, first hour, 8 hour observation and 24 hours. As conclusion Intravenous Paracetamol appeared as effective as Tramadol in the management of mild to moderate pain in female patients undergoing laparoscopic cholecystectomy in doses used in our study. While Tramadol seems to be more effective than Paracetamol in male groups.