Laparoscopic colorectal surgery (LCS) is an evolving subject. Recent studies show that LCS can not only offer safe surgery but evidence is growing that this new technique can be superior to classical open procedures. Fewer perioperative complications and faster postoperative recovery are regularly mentioned when studies of LCS are presented. Even though the learning curve of LCS is frequently debated when limitations of laparoscopic surgeries are reviewed, studies show that in experienced hands LCS can be a safe procedure for colorectal cancer treatment. The learning curve however, is associated with high conversion rates and economical aspects such as higher costs and prolonged hospital stay. Nevertheless, laparoscopic colorectal cancer surgery (LCCR) offers several advantages such as less co-morbidity and less postoperative pain in comparison with open procedures. Furthermore, the good exposure of the pelvic cavity by laparoscopy and the magnification of anatomical structures seem to facilitate pelvic dissection laparoscopically. Moreover, recent studies describe no difference in safety and oncological radicalness in LCCR compared to the open total mesorectal excision (TME). The oncological adequacy of LCCR still remains unproven today, because long-term results do not yet exist. To date, only a few studies have described the results of laparoscopic TME combined with preoperative adjuvant treatment for colorectal cancer. The aim of this review is to
examine the various areas of development and controversy of LCCR in comparison to the conventional open approach.