Title: A single institution experience on minimally invasive repair of pectus deformities

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Body: Minimally invasive repair of pectus excavatum (MIRPE) and minimally invasive repair of pectus carinatum (MIRPC) have become the standard treatment in many centers in recent years due to successful surgical outcomes. The aim of this study was to investigate the results of MIRPE and MIRPC at our institute. 435 patients who had had minimally invasive repair of pectus deformity between August 2005 – February 2013 were evaluated retrospectively, according to the demographics, form of the deformity, number of placed bars, operation duration, perioperative and postoperative complications, length of hospital stay, reoperations, bar removal recurrence and patient satisfaction. type of deformity, number of bars, operation duration, length of hospital stay, recurrence and patient satisfaction. 375 of the patients were male, 60 were female and the median age was 16.5 (range: 6-46). 343 patients had MIRPE while 92 had MIRPC. The deformity was symmetric in 324 and asymmetric in 111 cases. One pectus bar was placed in 328 cases, two in 100, three in 7 cases for the correction of the deformity. The median operation duration was 60 minutes (range: 20-180) and the median duration of hospital stay was 5 days (range: 2-10). Bars of the 125 patients were removed on planned date. According to the evaluation of the quality-of-life questionnaires 96% of the patients were satisfied with surgical outcome. Both MIRPE and MIRPC are successful surgical techniques and they can be preferred for the short operating time, low morbidity and high levels of patient satisfaction.