The operative technique for Acute Appendicitis (AA) consists of an appendectomy; however, the choice of either an open or laparoscopic operation continues to be challenged in the medical literature [1]. Historically, the RLQ incision of open appendectomy has persisted essentially unchanged since it was pioneered by McBurney in the 19th century. The use of laparoscopy in the surgical management of AA was first described in 1983, with a continued increasing trend in its use [2].

As with other acute diseases of the abdominal cavity after laparoscopic laparotomy (appendectomy), unfortunately, a number of well-known complications such as bleeding, leakage, purulence, abscess formation, adhesions formation, leading to the development of adhesive disease and intestinal obstruction. In addition, the forms themselves inflammation can manifest initially as a simple (catarrhal) or purulent (phlegmonous, gangrenous), in turn, with a possible inflammation of the peritoneum (limited local) or general (diffuse) peritonitis. What makes surgeons constantly analyse complications and readmissions for one reason or another, with the improvement of the methods of surgical treatment [3, 4].

**Introduction**: laparoscopic appendectomy (LA) is considered to be a standard treatment for acute appendicitis due to low surgical site infection rate and early ambulation [5]. Current studies are focusing on early discharge and “outpatient procedure” though readmission rates are high. The purpose of this study was to analyse the outcomes of LA and examine the rate of readmission 30 days after surgery [6].

**Methods.** We conducted a retrospective cohort analysis based of all patients who had LA in our hospital. Patient's files were surveyed for demographic data and comorbidities as well as WBC, temperature and pulse rate during the index admission. We documented intraoperative findings, the usage of drain, antibiotic treatment, length of surgery and length of stay. We recorded similar data of all patients who were readmitted 30 days after surgery including radiological findings and initial treatment and usage of invasive procedure, if needed.

**Results.** During the years 2010 to 2012, 412 patients had appendectomy due to acute appendicitis. Of them, 390 patient had LA with mean age of 26.7 years (range 6-91, median 21). Preoperative data is summarised in table 1. Uncomplicated appendicitis was found in 334/374 (89.3%) and complicated appendicitis was found in 37/374 (9.9%) [7]. White appendix was found in 3/374 (0.8%). Drain was placed in 17.8% of patients and the conversion rate was 2.7%.
Twenty three patients (5.58%) were readmitted during the early postoperative period. Of them, 21/23 patients were admitted due to surgical related complications (one had hip fracture and another had chest pain). Ten patients had abscess or defined collection [8]. All patients were treated with antibiotics and only two needed further radiologic invasive drainage (table).

**Conclusion.** LA is a safe procedure. Readmission rates are low and in most cases patients can be treated conservatively.

**References**

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### Table

| Criteria                  | No-readmission 369 (94.6%) | Readmission 21 (5.4%) | All cases 390 |
|--------------------------|-----------------------------|----------------------|--------------|
| Gender                   | Male                        | 247 (66.9%)          | 11 (52.4%)   | 258 (66.2%) |
|                          | Female                      | 122 (33.1%)          | 10 (47.6%)   | 132 (33.8%) |
| Origin                   | Jewish                      | 174 (47.2%)          | 11 (52.4%)   | 185 (47.4%) |
|                          | Arab                        | 182 (49.3%)          | 9 (42.9%)    | 191 (49.0%) |
|                          | Other                       | 13 (3.5%)            | 4 (8.8%)     | 14 (3.6%)   |
| Temperature              | Mean                        | 37.0                 | 36.9         | 36.8        |
|                          | Median                      | 36.8                 | 36.7         | 36.8        |
|                          | Range                       | 36.8-39.3            | 36.7-39.0    | 36.0-39.3   |
| WBC*                    | Mean                        | 13817.8              | 14832.9      | 13872.7     |
|                          | Median                      | 13620.0              | 14650.0      | 13700.0     |
|                          | Range                       | 17150.0-25700        | 6120.0-28000 | 17150.0-28000 |
| Pulse Rate              | Mean                        | 86.2                 | 83.6         | 86.0        |
|                          | Median                      | 84.0                 | 85.0         | 84.0        |
|                          | Range                       | 50.0-130.0           | 60.0-110.0   | 50.0-130.0  |
| Intra-operative findings | Uncomplicated               | 332 (90.7%)          | 12 (57.1%)   | 344 (88.9%) |
|                          | Complicated                 | 32 (8.7%)            | 8 (38.1%)    | 40 (10.3%)  |
|                          | White                       | 2 (0.5%)             | 1 (4.8%)     | 3 (0.8%)    |
|                          | Mean                        | 2.6                  | 3.1          | 2.7         |
|                          | Median                      | 2.0                  | 2.0          | 2.0         |
|                          | Range                       | 1.0-3.3             | 1.0-3.3      | 1.0-3.3     |
| Length of surgery       | Mean                        | 41.9                 | 44.5         | 42.0        |
|                          | Median                      | 38.0                 | 41.0         | 38.5        |
|                          | Range                       | 14.2-133.1           | 24.1-82.9    | 14.2-133.1  |

*WBC – white blood count.*