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Literature matters research bulletin

Which type of reaction in retained surgical sponges is more dangerous?

Mesut Gul, Ibrahim Aliosmanoglu, Burak Veli Ulger, Adbullah Oguz, Mehmet Güli Çetinçakmak, Ahmet Türkoglu
Ann. Ital. Chir. 2015; 86:378-382

Introduction:
Retained surgical sponges *(RSS)* is a term to define forgotten surgical sponges during operation and it was used for the first time by Wilson at 1884[1].

Even though the actual incidence of RSS is unknown, it has been reported that it is seen in 1/100-1/3000 of all surgical interventions and 1/1000 - 1/1500 of intra-abdominal operations[2-3].

In the abdomen, omentum and intestines try to surround the RSS. At this stage, RSS causes two kinds of reactions in the body. The first one is to develop an abscess through exudative inflammatory reaction in the early phase[4-6]. The second one is aseptic fibrous reaction which progresses by forming a capsule or granule around RSS.

Most of these cases can stay asymptomatic for months even for years and are found out incidentally[4-6]. Emergence time of RSS signs and symptoms can range between a couple of days and 40 years, depending on the reaction type in the body, earlier in the exudative type[4,7].

Materials and methods:
18 patients with retained surgical sponge, who had been operated at Dicle University Medical Faculty General Surgery Clinic between January 1994 and July 2012, were included in the study.

Patients operated before 7 months are classified as early admission, others as late admissions[9].

Results:
Of the 18 patients included in the study, 11 *(61.1%)* were females and 7 *(38.9%)* were males and the average age was 47.3 *(25-75)* years. 10 of the previous operations *(55.5%)* were emergent, 8 were elective surgery *(44.5%)*. 10 of the previous operations *(55.5%)* were carried out in the general surgery clinic, 6 *(33.3%)* in gynecology and 2 *(21.2%)* in the urology clinic. Mean therapy interval was 21.3 months *(10 months-84 months)*. 12 of the patients operated for RSS were early admissions, 6 were late.

Patients		Age	Gender	Previous Operation	Clinical Presentation	Interval
1	Emergency	30	F	Caesarean section	Abdominal abscess	10 days
2	Elective	71	F	Hysterectomy	Pseudotumor	60 months
3	Elective	60	M	Hydatid disease of the liver	Ileus	4 months
4	Emergency	71	F	Laparotomy for intestinal tuberculosis	Ileus	5 months
5	Elective	25	F	Exicision of benign ovarian cystic teratoma	Ileus	2 months
6	Emergency	50	M	Perforated duodenal ulcer	Pseudotumor	60 months
7	Elective	75	M	Prostatectomy	Recurrent urinary infection	48 months
8	Elective	68	F	Cholecystectomy	Acute abdomen	7 months
9	Emergency	37	F	Caesarean section	Abdominal abscess	3 months
10	Elective	55	F	Cholecystectomy	Pseudotumor	84 months
11	Emergency	45	M	Appendectomy	Pseudotumor	60 months
12	Elective	39	F	Pyelolithotomy	Abdominal abscess	6 months
13	Emergency	25	M	Appendectomy	Acute abdomen	3 months
14	Emergency	47	M	Appendectomy	Ileus	13 months
15	Emergency	40	F	Ileus	Ileus	16 days
16	Elective	42	F	Hysterectomy	Psoudo tm	6 months
17	Emergency	34	M	Appendectomy	Acute abdomen	17 days
18	Emergency	39	F	Caesarean section	Acute abdomen	5 months

Discussion:
Acute inflammatory reaction due to RSS causes formation of abscess, internal or external fistula intra abdominally.

Another important issue due to exudative reaction in RSS is migration of it from the walls of luminal organs like stomach, duodenum, jejunum, ileum, colon or bladder to the lumen. Even in some cases it can come out of rectum, bladder or surgical incisions spontaneously[7,12].

Key take-aways
- **Exudative reaction presents findings in the early phase due to its aggressive progression.**
- **This condition give a rise in need of intestine resection in patients who admitted early.**
- **And this rise results in higher morbidity rates and longer hospital stay.**

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Literature Number: 9100-004-038 Rev A
BLD/PS

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