USE OF OUTPATIENT ANTIMICROBIAL THERAPY (OPAT) IN PATIENTS WITH INTRA-ABDOMINAL ABSCESS AFTER ABDOMINAL SURGERY

A.Vivero [1], N.Sopena [1], M.Piñol [2], M.Bonet [1], G. Bonet [1], E. Blanco [1], A.Cuxart [1]

[1].OPAT Unit [2].General Surgery .Germans Trias i Pujol Hospital (Barcelona)

Background and Objectives

The hospital at home is a health care alternative that allows parenteral antibiotic treatment of various infections. Its use for appropriate patients reduces length of hospital stay or prevents admission. Outpatient antimicrobial therapy (OPAT) has been shown to be clinically and cost effective and is also preferred by patients.

The Outpatient Therapy Unit of Germans Trias i Pujol hospital is compound by a multidisciplinary team comprising infectious diseases physicians and nurses. The unit visits 900 patients per year, 30% of the activity is OPAT (3% of the cases are abdominal abscess after surgery).

The aim of this study was to analyze the outcome of outpatient antimicrobial therapy in patients with intra-abdominal abscess after surgery.

Methods

- **Study period:** June 2011 – June 2013
- **Patients**: all patients with intra-abdominal abscess after abdominal surgery treated with OPAT at home
- **Design of study**: Descriptive and retrospective.
- **Variables of study**: Age, sex, Charlson index, microorganism isolated, antibiotic, duration of treatment, adverse effects, outcome.

References

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Sex/Age	Charlson Index	Diagnosis	Surgery	Abscess Drainage	Microorganism	Antibiotic	Outcome
♂ 59	6	Colon cancer	Right colectomy	No	No	Ertapenem	Return to hospital
♀ 59	7	Colon cancer	Right colectomy	Yes	No	Piperacillin-tazobactam	Cured
♀ 31	0	Immune thrombocytopenia	Laparoscopic Splenectomy	No	No	Ertapenem	Cured
♀ 35	2	Ulcerative colitis	Ileostomy	Yes	No	Ceftriaxone+ metronidazole	Return to hospital
♀48	2	Gallstones	Laparoscopic cholecystectomy	Yes	No	Ceftriaxone+ metronidazole	Cured
♀ 25	0	Appendicitis	Laparoscopic appendicectomy	No	No	Ertapenem	Cured
♂49	8	Rectal cancer	Proctocolectomy, liver metastases resection	Yes	Klebsiella BLEE	Ertapenem	Cured
♂21	0	Appendicitis	Appendectomy	No	No	Piperacillin-tazobactam	Cured
♂69	2	Pancreatic cancer	Pancreatoduodenectomy	Yes	No	Ertapenem	Cured
♂77	2	Rectal cancer	Proctocolectomy	No	No	Ertapenem	Cured
♂54	0	Perforation after colonoscopy	Right colectomy	Yes	Bacteroides fragilis	Ertapenem	Cured
♂65	4	Colon cancer	Right colectomy	No	No	Piperacillin-tazobactam	Cured
♀77	3	Pancreatic cancer	Pancreatectomy	Yes	E.coli BLEE	Ertapenem	Cured
♂59	0	Complicated diverticulitis	Hartmann	No	No	Ertapenem	Cured
♂68	4	Ischaemia	Aortobifemoral bypass	Yes	Klebsiella BLEE	Ertapenem	Cured
♂80	3	Colon cancer	Hemicolectomy	Yes	Klebsiella oxytoca	Ertapenem	Cured
♀53	2	Rectal cancer	Proctocolectomy	No	S.viridans	Ertapenem	Cured
♂69	2	Bleeding ulcus	Partial gastrectomy	Yes	Enterococcus faecium	Ertapenem+ Vancomycin	Cured
♂ 59	3	Hepatocellular carcinoma	Left hepatic lobectomy	No	E.coli	Ceftriaxone+ metronidazole	Cured
♀52	7	Rectal cancer	Proctocolectomy	Yes	No	Ertapenem	Cured
♂30	0	Familial polyposis	Proctocolectomy	Yes	No	Ertapenem	Cured

Results

- 21 patients were include.
- 62% were male, with a mean age of 53 ±17 years old.
- The Charlson index was ≥3 in half of the patients.
- All of cases were diagnosed by CT scan, after clinical suspect.
- The delay of diagnosis from abdominal surgery was 15±6 days.
- We had positive cultures in the 38% of the cases (8 patients) *Klebsiella pneumoniae* in 3 cases, *E.coli* in 2 cases, *E.faecium* in 1 case, *B. fragilis* in 1 case, and *streptococci viridans* in 1 case.
- Multidrug resistant microorganisms were isolated in 3 cases (2 *Klebsiella pneumoniae* BLEE and 1 *E.coli* BLEE).
- The mean duration of antibiotic therapy at hospital was 7.38±5.6 days, and at home 14±7.1 days.
- The antibiotic treatment was ertapenem in 71.4% of the patients, followed by piperacillin tazobactam (14.3%) and ceftriaxone plus metronidazole (14.3%).
- 57% of the abscesses were drained before going home 47% with percutaneous catheter guided by CT scan).
- No major adverse effects were detected. Phlebitis was seen in 4 cases.
- The cure rate during OPAT period was 90%.
- Two patients returned to the hospital because of clinical failure (both of them improved after percutaneous catheter drainage).
- Two patients were readmitted at hospital within a month because of other medical problems.

Conclusions

Using OPAT to treat patients with intra-abdominal collection after abdominal surgery is safe and clinically effective, with low rate of complication and readmissions. OPAT reduces hospital stay and cost of care.