

# Initial Management in Obstetric Anal Sphincter Injuries

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## Background

In 1999, Dr. Abdul Sultan proposed (determined) an obstetric perineal lesions classification, which nowadays is worldwide accepted. This has improved the diagnosis and treatment of the Obstetric Anal Sphincter Injuries (OASIS) are those determined as third and fourth grade [1]. OASIS occurs in 0.5–14% of vaginal deliveries worldwide in the world, despite the increased acknowledgment of it and its intensive training efforts for trainees, the incidence has grown up or augmented has increased in recent decades [2,3]. Although the main objective of medical research is the prevention of OASIS, the initial postoperative management is overlooked, it means, suboptimal or deficient medical care in these women. Because of this, this review pretends to improve and update the knowledge in the topic.

## Use of Antibiotics

Third- and fourth-degree injuries can become contaminated with bacteria from the rectum, significantly increasing the chances of infection of the perineal wound. Therefore, it is considered that prophylactic antibiotics may be important in preventing this infection [4]. A systematic review in 2019 showed the diversity of antimicrobial regimens used in the management of OASIS, which first and second generation cephalosporins, aminopenicillins and macrolides are the best options [5]. A randomized clinical trial, which included 147 women with OASIS, compared a prophylactic intravenous single dose of 2<sup>nd</sup> cephalosporin generation (cefotetan or cefoxitin) versus placebo. It showed, after 2 weeks postpartum, lower rates of wound infection with the use of prophylactic antibiotic in comparison with placebo (8.2% vs 24.10% RR 0.34, 95% CI 0.12-0.96) [6]. The Canadian Society of Gynecology and Obstetrics, since its 2015 guidelines, suggest an intravenous single dose of a 2<sup>nd</sup> generation cephalosporin while repairing [7]. In the same year, The Royal College of Gynecologist and Obstetricians (RCOG) recommend the use of broad-spectrum antibiotics in the patient with OASIS repair; however, no dose nor antibiotic is specified [8]. Likewise, The American College of Gynecologist and Obstetricians (ACOG) do

not specify dose or antibiotic, only indicate a prophylactic single dose of it [9]. Although it is widely clinical recommended, the medical evidence supporting these recommendations is limited due to small numbers of population and studies at high risk of bias.

## Pain Management

Pain is a condition that decreases the patients quality life and limit their activities; therefore it is essential to promote its relief in the immediate postoperative period. There are recommendations from international societies about the use of non-steroidal anti-inflammatory drugs as the first line of treatment [8]. Moreover, other options include aspirin or local application of cooling treatments. A systematic review with 35 randomized clinical trials in non-breastfeeding women showed that a single oral dose of non-steroidal anti-inflammatory drug compared to placebo, was better in relieving pain at 4 (1.91, 95% CI 1.64-2.23) and 6 hours (RR 1.92, 95% CI 1.69-2.17); and decrease additional drug administration at 4 (RR 0.39, 95% CI 0.26-0.58) and 6 hours (RR 0.32, 95% CI 0.26-0.40) Besides NSAIDs were superior compared with paracetamol [10]. Shepherd et al. in a systematic review that included 17 RCTs compared a single dose of aspirin against placebo for pain relief, aspirin showed superiority (RR 2.03, 95% CI 1.69-2.4). and decrease additional analgesia application (RR 0.25, 95% CI 0.17-0.37), same results were shown when 300mg, 600mg or 1200mg comparison was done [11]. Regarding the use of cryotherapy, a systematic review showed limited and low-quality evidence in the use of freezing treatments for 10 to 20 minutes (ice pack or freezer gel pad) in concomitant use with analgesic or anti-inflammatories to relieve pain in the first two days postpartum. No adverse effects were shown [12].

## Stool Softeners

A passage of a hard bolus of stool may disrupt the repair procedure, therefore most surgical textbooks and expert opinions recommend the use of behavioral measures and laxatives [13].

Behavioral measures, which always have to be done, include: increase oral fluids, mainly water, at 1400-1800mL /day; a generous fiber diet, with a contribution of 30 grams / day; and the monitorization of patterns and posture when defecate [14,15]. RCOG recommended the use of stool softeners such as lactulose is recommended for about 10 days after the repair.

## Conclusion

The use of a single dose intravenous antibiotic at the time of OASIS repair has been shown to prevent surgical wound infection, however this information should be taken with caution, since it is obtained from small clinical trials. Pain relief should always be sought, there is enough evidence to recommend the use of non-steroidal inflammatory analgesics plus the use of local cryotherapy -in short periods to avoid the adverse effects of frostbite-. It has been suggested as part of the post-operative care in OASIS, to avoid constipation, first with the use of behavioral measures and if necessary with laxatives, mainly lactulose, since it shows fewer adverse effects. Adequately designed randomized studies are needed to favor the best management immediately after repair of an obstetric anal sphincter injury.

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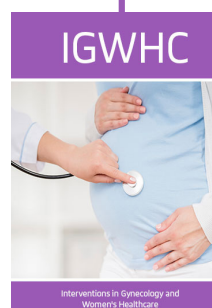
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