English summary – Guideline for obstetric anal sphincter injury (OASIS)
Danish Association of Obstetrics and Gynaecology, 2019

Clinical recommendations	***Level of evidence***

Identification of OASIS

Endoanal ultrasound is *not* recommended for diagnostic purposes immediately after delivery when OASIS is suspected.	√

Repair of OASIS

In a total tear of the external anal sphincter the end-to-end suturing technique is recommended with outcomes equivalent to those of the overlapping technique.	A
For partial thickness tear of the external anal sphincter the end-to-end technique is recommended.	√
The muscle ends of the external anal sphincter should be clearly identified to reconstruct the sphincter in full thickness and height. (The height of the external anal sphincter is approximately 2-3 cm). It is recommended that the sutures include the perimysium.	√
The internal anal sphincter should be separately identified and sutured with a multifilament suture 3-0. (The internal anal sphincter has a thickness of a few millimeters and a height of approx. 3 cm).	C
The external anal sphincter should be sutured with either Vicryl® 2-0, PDS® 3-0 or equivalent suture material.	A
The anorectal mucosa can be sutured with Vicryl® 3-0 or equivalent suture material if torn.	√

Routine use of prophylactic antibiotics cannot be recommended for third degree tears due to lack of evidence.	D
Prophylactic antibiotics are recommended for fourth degree tears because of the theoretical risk of bacterial contamination.	√
Prophylactic antibiotics are recommended in case of delayed suturing of tears independent of degree of tear.	√
For peroperative prophylactic antibiotics a two-drug intravenous treatment is recommended with for example cefuroxime and metronidazole.	√

Primary suturing of tears can be postponed for 8-12 hours to await a skilled surgeon in which case prophylactic antibiotics are recommended independent of degree of tear.	A
In case of delayed suturing of tears prophylactic antibiotics are recommended with a two-drug intravenous treatment with for example cefuroxime or metronidazole.	√

Repair of OASIS should take place under optimal conditions – typically in an operating theatre, where good lighting, assistance and appropriate anesthesia	√

and instruments can be provided. However, repair of OASIS in the delivery room may be performed in certain circumstances after discussion with a senior obstetrician, if equivalent good conditions can be provided.	
Repair of OASIS should be conducted by an experienced surgeon or with an experienced supervisor present.	√

Postoperative management and care

Routine use of postoperative antibiotics after repair of OASIS is not recommended.	√
A urinary catheter should be considered in case of severe tears and if swelling or tears close to the urethra. It is always recommended to control the ability to empty the bladder postoperatively.	C
Postoperative laxatives are recommended as it reduces pain at defecation and the risk of postoperative rupture of sutures.	A
First line analgesics includes a combination of local cooling agents (e.g. ice-pads) with oral paracetamol and ibuprofen.	A
It is recommended that women who have undergone obstetric anal sphincter repair are informed about the extent of the tear, the performed surgical repair and possible complications.	√
Women who have undergone obstetric anal sphincter repair are advised that they may lift until pain perception threshold. They should be advised about possible relieving positions for sitting and breastfeeding.	√
Women who have undergone obstetric anal sphincter repair should receive information about and instructions in performing pelvic floor muscle training.	√
Women who have undergone obstetric anal sphincter repair can be discharged from hospital when they are physically and psychologically ready, their pain can be managed with over-the-counter pain medication and they can empty their bladder.	√
Women who have undergone obstetric anal sphincter repair should be assessed clinically 10-15 days postpartum. The visit should include inspection of the wound to diagnose wound ruptures requiring re-suturing.	C
Review can be by a trained midwife or nurse, an experienced obstetrician or a uro-gynecologist.	√
Women who have undergone obstetric anal sphincter repair should be advised to contact the hospital in case of rupture of the wound, infection, fecal incontinence or profound fecal urgency within three weeks of delivery.	√

Women who have undergone obstetric anal sphincter repair can be offered early individual physiotherapy.	B/C

Postoperative complications

Women with OASIS should be informed about the long-term complications of OASIS including anal incontinence, dyspareunia and chronic pelvic pain.	√
The importance of seeking help in case of complications – also a long time after delivery – should be emphasized to the woman.	√

Future delivery following OASIS in a previous delivery

Women should be advised about the risk of recurrence of OASIS during a consecutive vaginal delivery of 5.8% (international mean) / 7.1% (Danish population year 2010-17).	B
Women should be informed that there is no evidence that cesarean section protects against worsening of or de novo symptoms of anal incontinence.	B
Pregnant women can be recommended vaginal delivery if they have not had transient or persistent anal incontinence and if they do not develop anal incontinence during the pregnancy	B
Pregnant women can be recommended a cesarean section if they have had transient or persistent anal incontinence or if they develop anal incontinence during the pregnancy. The woman should be informed about the risks of a cesarean section.	B

Questionnaires and diaries about anal incontinence

Questionnaires about sequelae to OASIS should explore the degree of incontinence as well as how it affects the woman's quality of life. Validity, reliability and responsiveness are also important factors regarding quality of the questionnaire.	√
It is recommended to use the Wexners score / St. Marks score, because these are widely used and validated in Danish.	√
Diaries can contribute to clarify the extent of anal incontinence in women with a previous OASIS.	C