

# 产科肛门括约肌损伤的危险因素分析

高李<sup>1\*</sup>, 任永变<sup>2</sup>, 贾静<sup>1</sup>

<sup>1</sup>延安大学医学院, 陕西 延安

<sup>2</sup>延安大学附属医院产科, 陕西 延安

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## 摘要

目的: 了解国内外产科肛门括约肌损伤危险因素研究进展, 为进一步制定针对性防治策略提供参考。方法: 对国内外相关文献进行检索, 提取主题, 分别从产妇、胎儿、助产士、产时操作、分娩方式等5个方面总结归纳产科肛门括约肌损伤危险因素。结果: 综述发现, 初产妇、产妇的生育年龄、体重指数、种族、孕妇的生活环境及社会地位、分娩时的情绪状态、既往OASI史、巨大儿、既往损伤史、助产士年资、器械助产、第2产程的延长、中线会阴切开术、孕产妇分娩时的体位(例如截石位、蹲坐)等是其危险因素。结论: 临床医师及助产士通过及时准确识别孕产妇可改变危险因素, 并制定针对性干预措施对其一级预防至关重要, 未来可结合我国国情, 构建本土化肛门括约肌损伤风险预警模型, 并制定针对性干预措施, 从根源防治, 减少不良分娩结局发生。

## 关键词

分娩, 产科肛门括约肌损伤, 危险因素

# Analysis of Risk Factors for Anal Sphincter Injury in Obstetrics

Li Gao<sup>1\*</sup>, Yongbian Ren<sup>2</sup>, Jing Jia<sup>1</sup>

<sup>1</sup>School of Medicine, Yan'an University, Yan'an Shaanxi

<sup>2</sup>Obstetrical Department, Affiliated Hospital of Yan'an University, Yan'an Shaanxi

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## Abstract

**Objective:** To understand the research progress of risk factors of obstetric anal sphincter injury at

\*通讯作者。

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home and abroad, and to provide reference for further development of targeted prevention and treatment strategies. **Methods:** The relevant literature at home and abroad was searched, the theme was extracted, and the risk factors of obstetric anal sphincter injury were summarized from 5 aspects, such as parturient, fetus, midwife, intrapartum operation and delivery mode. The results review found that risk factors include the age of primipara, age of childbearing, body mass index, ethnicity, living environment and social status of pregnant women, emotional state at delivery, previous history of OASI, macrosomia, previous history of injury, midwife's experience, instrumental assistance, extension of the second stage of labor, midline episiotomy, and position of pregnant women during delivery (e.g. lithotomy, squatting). **Conclusion:** It is very important for clinicians and midwives to timely and accurately identify the risk factors that can be modified for pregnant women and formulate targeted intervention measures for their primary prevention. In the future, based on China's national conditions, a localized anal sphincter injury risk warning model can be built, and targeted intervention measures can be formulated to prevent and control the root causes and reduce adverse birth outcomes.

## Keywords

Childbirth, Obstetric Anal Sphincter Injury, Risk Factors

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## 1. 引言

产科肛门括约肌损伤(OASI)包括三度或四度会阴撕裂,与一度或二度会阴撕裂相比,其可能会导致相当严重的后遗症。在过去的几年中,与分娩期间肛门括约肌损伤和包括肛门失禁在内的后遗症发生率明显升高[1]。国外相关研究得出产科肛门括约肌损伤(OASI)的发生率尚未明确,发生率从0.6%到19.3%不等[2]。目前,我们正面临OASI发生率呈上升的趋势。据报道,英国、澳大利亚、斯堪的纳维亚和美国的OASI发生率都有所上升[2]。随着人们对医疗质量项目的不断探索研究,OASI成为一大热门研究话题,由于产科肛门括约肌损伤与显著的产妇发病率相关,包括产妇会阴疼痛、性交困难(甚至出现性交疼痛)、尿失禁和肛门失禁等,这可能导致孕产妇心理和生理留有后遗症。但是许多女性可能由于尴尬,导致不及时寻求医疗救助,这进一步导致OASI的防治面临更严峻的挑战。OASI的早期诊断对于确定及时的治疗策略是必要的,从而避免出现迟发性后果,例如大便失禁等。为此,可以在对产妇彻底的临床检查后进行各种诊断检查。OASIS的管理包括多项措施,应根据产妇临床表现的时间和特征进行个体化处理。

## 2. 产妇相关因素

影响产科肛门括约肌损伤的因素主要包括孕产妇的生育年龄、体重指数、种族、社会地位、分娩时的情绪状态、既往OASI史等[3]-[13]。有相关研究报道认为,女性生育年龄和其发生OASI的风险呈正相关,这可能是由于女性年龄越大,其会阴结缔组织功能减弱有关[3][4];国外有研究发现40岁以上母亲发生OASI的风险显著增加[5];而35岁以上女性的发生OASI风险略有增加[6]。有研究认为孕妇的产次及体重指数与OASI复发风险的变化无明显关联[7][8],但Blomberg M等人认为,随着产妇BMI的增加,经阴道分娩时肛门括约肌损伤的总体风险呈显著降低趋势[9]。根据Edozien等人的说法,亚裔是OASI

复发的危险因素[10]。国外有综述报道称：社会经济地位(SES)是与医疗结果相关的最重要因素之一，当社会经济地位较低或者是生活在较贫困地区时，医疗护理就会不足，这会导致不良后果。对于孕产妇来说，孕期发生并发症(包括流产、早产、先兆子痫、子痫和妊娠期糖尿病等)的风险就会明显升高，因此产妇产阴道分娩时会阴撕裂的风险也会升高，从而增加产妇以及胎儿不良妊娠结局的发生[11] [12]；另外，孕产妇分娩时的不良情绪也会导致会阴发生严重裂伤，甚至发生 OASI，当产妇分娩时情绪稳定，助产士才能更好地指导产妇顺利分娩，从而避免 OASI 的发生。在 Henry H Chill 等人的一项研究中，将至少一次经阴道分娩后患有 OASI 的女性与没有此类损伤的女性进行比较，作者发现既往至少有一次经阴道分娩并有 OASI 损伤史是 OASI 发生的独立危险因素[13]；在未来临床工作中，产科医生及助产士应能够及时、准确识别与产科肛门括约肌损伤的相关因素，例如孕产妇的会阴条件、孕产妇分娩时的情绪等，能及时做出调整，从而促进母婴健康。

### 3. 胎儿相关因素

影响产科肛门括约肌损伤的胎儿因素主要包括胎儿的出生体质量、头围、胎位、胎儿的胎心变异、胎头过硬等。有相关实验研究显示：胎儿出生体重 > 4 kg 的与增加产妇发生 OASI 的风险有关联，而胎儿出生体重 > 5 kg 与之关联更显著[14]；Henry H Chill 等人研究与其结论基本一致，他们实验发现：胎儿出生体重的增加、胎儿头围增加都是 OASI 发生的危险因素[15]。其他研究报告胎儿肩难产是也是一个危险因素，其会导致发生 OASI 的风险显著增加[10]；另外，胎儿胎心出现频发减速、胎头过硬也与 OASI 的发生有一定的关联，当胎儿出现晚期胎心减速，进一步导致胎儿宫内窘迫时，产科医生应立即采取相关急救措施如立即给予孕产妇吸氧、改变体位分娩等，从而避免 OASI 的发生。这提示医务人员在分娩前对胎儿和孕产妇要做好充分的评估，在分娩过程中要时刻注意观察孕妇产程，进一步做好相关处理，从而避免不良分娩结局的发生。

### 4. 助产士相关因素

临床医生及助产士的工作经验及年资也在一定程度上影响 OASI 的发生率。Bertrand Gachon 等人建议：在阴道分娩后应立即检查产妇产会阴以寻找有无发生 OASI，但是需要改进的一点是应培训产科医生和助产士，正确执行此筛查并能有效及时诊断孕产妇有无发生 OASI [16]。有几项数据报告显示，特定培训产科医生和助产士后 OASI 的诊断率有所提高。且临床医生与助产士应时刻关注产妇产经阴道分娩时的肛门括约肌损伤的真实体验，且要识别产妇产发生肛门括约肌损伤的高危因素，从而能够给予孕产妇及时有效的干预措施，以便孕产妇更好地重返社会，提高产妇的今后的生活质量。

### 5. 分娩时相关因素

影响产科肛门括约肌损伤的分娩时的因素主要有对产妇施行硬膜外麻醉、器械助产、第 2 产程的延长、会阴切开术、孕产妇分娩时的体位等。硬膜外麻醉对于产科肛门括约肌损伤的影响还不明确[17] [18]。虽然一些研究者认为对产妇使用硬膜外麻醉可以降低 OASI 的发生率[19] [20]，但部分研究者认为两者之间没有明显差异。鲁斯等人认为硬膜外镇痛是预测 OASI 的唯一独立因素，可能没有可靠的替代硬膜外镇痛来持续的和较安全的缓解疼痛，并且严格来说它可能不是一个可改变的因素[21]。另外，Gabriel Levin 等人基于对人群的研究：例如对孕产妇施行硬膜外麻醉对于发生 OASI 的风险因素分析中显示的，此风险因素可能代表与未生育相关的混杂因素[13] [22]。当前实验研究基于硬膜外麻醉对 OASI 发生的影响还不明确，建议可以使用高质量证据或实验进行进一步的验证。HansPeter Dietz 等人在临床研究发现发生 OASI 的危险因素中将器械助产(尤其是产钳助产)、第二产程延长均已确定为危险因素[23] [24]。会阴

切开术在预防 OASI 和(或)肛门失禁方面的作用仍有争议,但目前不推荐常规会阴切开术[25] [26]。ACOG 指南明确指出中线会阴切开术会增加 OASI 的风险,所以目前对于行会阴切开术的建议仅限于在适当的临床情况下使用[27]。在器械助产或任何有指征的情况下,应考虑与中线成 45~60 度角的中外侧会阴切开术,因为与自发性撕裂伤相比,它与括约肌损伤的发生率较低有关[28] [29]。国外有研究已经确定某些分娩体位(例如截石位、蹲坐)是 OASI 的风险因素[30] [31],而其他分娩体位(例如侧卧位)被认为具有保护作用[32] [33]。

孕产妇不同的分娩方式对产科肛门括约肌的影响尚无统一结论:有研究认为:剖宫产被认为在一定程度上可以保护盆腔器官脱垂,并在较小程度上保护尿失禁。然而,与阴道分娩相比,常规性施行剖宫产手术尚未显示对 FI (女性大便失禁)具有保护作用[34] [35]; Jessica Uebergang 等人研究得出结论:与阴道分娩的初产妇女相比,首次接受 VBAC (剖宫产后经阴道分娩)的孕妇发生三度或四度撕裂的风险是显著增加的[36]。

## 6. 小结

有效预防 OASI 是一个尚未实现的目标。主要困难是大多数风险因素是不可改变的、固有的母体或新生儿参数,尽管在某些临床情况下难以避免,但在某些情况下可能需要更严格地把控这些干预措施,例如对产妇产硬膜外麻醉、器械助产、会阴切开术等。临床医师及助产士通过及时准确识别孕产妇可改变危险因素,制定针对性干预措施,从根源防治 OASI 的发生,从而减少不良分娩结局的发生。

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