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Why Is It Worth A Systematic Review: Supine Hypotensive Syndrome?

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Why Is It Worth A Systematic Review: Supine Hypotensive Syndrome?

(Read Chinese version here; 中文版)

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Supine hypotensive syndrome (SHS) is an issue in late pregnancy and has been well described for more than 6 decades.¹ The maneuver of left uterine displacement (LUD) has been a standard care in labor and delivery suites as well as operating rooms to attempt solving SHS in the United States, no questions will be asked, and the written concept exists in every major textbook from obstetrics to anesthesia. However, it has not been a standard or a routine practice in other countries, perhaps in the majority population in the rest of the world as Zhao's review² has pointed out.

Now, questions become: "Is LUD really necessary?" "What are potential mechanisms behind SHS?" "Does it occur to every woman?" "What gestational week could SHS start?" "Do pregnant women know if they have SHS?" "Does it occur as soon as pregnant women lie flat?" "Why do some women present bradycardia even during hypotension?" "Should we trust the current methods to measure pregnant women's blood pressure?" "How much should LUD be, too much, or too less?" "What consequences would it have if lying flat?" "How much does neuraxial labor analgesia affect SHS? What about neuraxial anesthesia or general anesthesia for cesarean deliveries? What about anesthesia complications such as high/total spinal?" "Is there any alternative way to manage this issue when parturients really need to lie supine, for example, during resuscitation of maternal cardiac arrest?"

Also, even in the United States, questions could still be asked: "How much do pregnant women know about SHS?" "How many of them are not actually lying on their backs?" "How much effort should health care providers make to reinforce the maneuver?"

Furthermore, in the era of evidence-based medical practice, "Is there any high level evidence to support or

not support the LUD?” Or even, “Is it necessary for Level Ia evidence to guide our practice in this issue?”

We have questions after questions about SHS. It is not a current hot topic as we expected, but really worth to have a systematic review like this. It is a big clinical matter in our daily practice. In addition, it might become a potential hot topic after this review, especially in the anesthesia field.

References:

1. Howard KB, Goodson JH, Mengert WF. Supine hypotensive syndrome in late pregnancy. *Obstet. Gynec.* 1953; 1: 371-7
2. Pei-Shan Zhao. Supine Hypotensive Syndrome: A Comprehensive Review of Literature. *Transl Perioper & Pain Med* 2014, 1(2):22-26

为什么需要关于仰卧位低血压综合症的综述？

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仰卧位低血压综合征 (SHS) 是个怀孕后期的临

床问题, 在60年前就有过详细的描述(1)。子宫左斜位

(LUD) 一直是产房和手术室SHS标准的临床处理。

在美国这是毫无疑问的, 出现在产科或产科麻醉的每

一本主流教科书。但是, 正如赵培山医生(2)指出的,

这并一直不是占世界人口大多其他国家的常规处理方

式。

现在的问题就变成了: “每个产妇LUD真有必要

吗?” “它的潜在机制是什么?” “是否每个孕产妇都会

出现?” “在怀孕哪一周开始?” “孕产妇自己知道SHS

吗?” “产妇一躺平就会有SHS吗?” “为什么一些孕产

妇低血压时反而出现心动过缓?” “能用现行的方法来

测量孕产妇的血压吗？”“多少角度的LUD正好？”“孕产妇平躺会有什么后果？”“常规椎管内分娩镇痛，剖宫产分娩用的椎管内麻醉或全身麻醉，出现麻醉并发症后（如高/总脊髓），对SHS的影响如何？”“产妇的确需要平卧，比如心脏骤停复苏时，有没有其他办法替代LUD？”“此外，即使在美国，问题可能还会问：“多少孕产妇知道SHS？”“有多少人真正认真做了？”“医护人员应当花多少力气强化这个理念？”“在循证医学时代，有没有高水平研究证据支持或反对LUD？”，甚至，“需要Ia级证据来指导LUD的临床实践吗？”

问题一个接一个。大家都知道这并不是当前的热门话题，但确实需要对它有个系统的回顾。我们日常临床工作中，这可以是性命交关的。在这篇综述后，这或许将成为一个麻醉领域的热点话题。

References:

1. Howard KB, Goodson JH, Mengert WF. Supine hypotensive syndrome in late pregnancy. *Obstet. Gynec.* 1953; 1: 371-7
2. Pei-Shan Zhao. Supine Hypotensive Syndrome: A Comprehensive Review of Literature. *Transl Perioper & Pain Med* 2014, 1(2):22-26