Talking Points: JAMA Laboring Down Study[1]

ABOUT THE STUDY:

- Randomized controlled unmasked trial
- Multicenter, 6 geographically representative academic and community medical centers in US
- Nulliparous women at or beyond 37 weeks' gestation admitted for spontaneous or induced labor with neuraxial analgesia; randomization occurred at complete dilation
- 1200 women randomized to immediate pushing (IP) group
- 1204 women randomized to delayed pushing (DP) group; instructed to wait 60 minutes or until instructed to push or until an irresistible urge to push was felt

HYPOTHESIS: "That the rate of spontaneous vaginal delivery would increase among nulliparous women with immediate pushing compared with delayed pushing.."[1]

CONCLUSION: "Among nulliparous women receiving neuraxial anesthesia, the timing of second stage pushing efforts did **not** affect the rate of spontaneous vaginal delivery."[1]

OTHER STUDY OUTCOMES	IP GROUP	DP GROUP	COMMENTS
Mean duration of active pushing	83.7 min.	74.5 min.	ACOG recommends allowing **AT LEAST** 180 minutes of pushing for nulliparous women; more in situations such as with neuraxial analgesia as long as progress is occurring.[2] In this study, the mean duration of 2nd stage FOR BOTH GROUPS was far less than 180 min.
Mean duration of 2nd stage	102.4 min.	134.2 min.	
Severe postpartum hemorrhage In this study, defined as "estimated blood loss >1000 ml for vaginal delivery & >2000 ml for cesarean"[3]	NO DIFFERENCES		In contrast to the definition used in the study, ACOG (in 2017) defines postpartum hemorrhage as "cumulative blood loss greater than or equal to 1000 ml or blood loss accompanied by signs or symptoms of hypovolemia within 24 hours after the birth process (includes intrapartum loss) regardless of the route of delivery."[4]
Postpartum hemorrhage In this study, defined as "estimated blood loss >500 ml for vaginal delivery & >1000 ml for cesarean"[3]	↓	↑	
Endometritis	NO DIFFERENCES		In a 2017 committee opinion, ACOG states that a diagnosis of chorioamnionitis is made "when the maternal temperature is greater than or equal to 39°C (102.2°F) or when the maternal temperature is 38°C (100.4°F) to 39°C (102.2°F) and one additional clinical risk factor is present.[5]
Chorioamnionitis In this study, simply defined "as diagnosed by the treating physician..."	↓	↑	
3rd & 4th degree perineal lacerations	↑	↓	3rd & 4th degree lacerations are the more severe lacerations that can cause anal incontinence.
Perineal lacerations	NO DIFFERENCES		
Composite outcome: neonatal morbidity	NO DIFFERENCES		
NICU admission	NO DIFFERENCES		
Neonatal acidemia	↓	↑	

ADDITIONAL KEY POINTS:

- The study was stopped early because it was clear that the main outcome (spontaneous vaginal births) would not change and there was concern over the increase in postpartum hemorrhage and chorioamnionitis.
- If the researchers had used ACOG definitions for postpartum hemorrhage and chorioamnionitis and/or reported the more severe outcomes (severe hemorrhage, endometritis, and 3rd & 4th degree lacerations), the study conclusions may well have favored the delayed pushing group.

SEE REVERSE SIDE FOR PROFESSIONAL ORGANIZATION RESPONSES AND REFERENCES

PROFESSIONAL ORGANIZATION RESPONSES

American College of Obstetricians and Gynecologists (ACOG)

"When considering the newly available evidence from Cahill 2018 with the existing body of literature that demonstrates no increase in the rate of a spontaneous vaginal delivery but an increase in morbidity in the delayed pushing group, it is reasonable to choose immediate over delayed pushing in nulliparous patients with neuraxial anesthesia."

ACOG. (Oct. 2018). Practice advisory: Immediate versus delayed pushing in nulliparous women receiving neuraxial analgesia. *Removed from the ACOG website, but the same recommendation appears in the Feb. 2019 reference below.*

"Collectively, and particularly in light of recent high-quality study findings [Cahill], data support pushing at the start of the second stage of labor for nulliparous women receiving neuraxial analgesia."

ACOG. (2019). ACOG committee opinion #766: Approaches to limit intervention during labor and birth. *Obstetrics & Gynecology, 133*(2), e164-e173.

American College of Nurse-Midwives (ACNM)

"While ACNM endorsed this practice advisory [ACOG's, above], further research about best practices for the second stage of labor as it pertains to this (and all other) study populations is needed. Current evidence can inform practice, and ACNM remains committed to physiologic birth, person-centered care, and shared decision-making."

ACNM. (October 9, 2018). ACNM responds to release of clinical trial comparing delayed to immediate pushing. https://bit.ly/2W0dGA5

Association of Women's Health, Obstetric, and Neonatal Nurses (AWHONN)

"Women should be provided information about options for the second stage of labor once they reach 10 cm cervical dilation including delayed pushing or immediate pushing. There are advantages and disadvantages of each method." [Authors do discuss the results and implications of the Cahill study in this practice guideline.]

AWHONN. (2019). *Nursing care and management of the second stage of labor* (third edition). Washington, DC: AWHONN.

REFERENCES

1. Cahill, A.G., et al. (2018). Effect of immediate vs delayed pushing on rates of spontaneous vaginal delivery among nulliparous women receiving neuraxial analgesia . A randomized clinical trial. *JAMA, 320*(14), 1444-1454.
2. ACOG & SMFM. (2014). Obstetric care consensus: Safe prevention of the primary cesarean delivery. *Obstetrics & Gynecology, 123*(3), 693-711.
3. Cahill, A.G., et al. (2018). Effect of immediate vs delayed pushing on rates of spontaneous vaginal delivery among nulliparous women receiving neuraxial analgesia . A randomized clinical trial. *JAMA, 320*(14), 1444-1454. Supplementary content.
4. ACOG. (2017). ACOG practice bulletin # 183: Postpartum hemorrhage. *Obstetrics & Gynecology, 130*(4), e168-e186.
5. ACOG. (2017). ACOG committee opinion # 712: Intrapartum management of intraamniotic infection. *Obstetrics & Gynecology, 130*(2), e95-e101.

ALSO RECOMMENDED

1. Association of Women's Health, Obstetric, and Neonatal Nurses (AWHONN). (2019). *Nursing care and management of the second stage of labor.* Third edition. Washington, DC: AWHONN.
2. Goer, H. (November 20, 2018). Should we abandon "laboring down" with epidurals? A closer look at new evidence. *Connecting the Dots* (Lamaze International blog). https://bit.ly/2HmqkQO

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