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Title

Adverse Outcomes of Second Trimester Dilation and Evacuation in Patients with Prior Cesarean Delivery

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Introduction

Prior Cesarean delivery (CD) has been shown to increase the overall complication risk in second trimester dilation and evacuation (D&E) procedures; however, little data exists about frequency of specific risks.¹

Study Objective

To determine the proportion of patients with prior CD that experienced adverse outcomes associated with D&E procedures.

Methods

- Case series including patients with history of CD undergoing D&E at 14w0d-23w6d at our institution from May 2020 to Dec 2021.
- Complications included:
 - Cervical laceration requiring repair
 - Uterine Atony requiring ≥ 2 uterotonics
 - Hemorrhage requiring blood transfusion
 - Infection
 - Hematometra
 - Vaginal laceration
- Interventions requiring ≥ 2 uterotonics for atony, sutures for lacerations, blood transfusions for hemorrhage, and intrauterine balloon were considered significant.

Results

- 213 of 770 (28%) patients met inclusion criteria.
- Of the 213 patients, 29 (14%) experienced adverse outcomes with some patients having more than one complicated outcome and 184 (86%) had no complications.
- 34 complications were observed and considered significant requiring the use of interventions listed in methods.
- Indications for procedural hemorrhage requiring transfusion included placenta accreta, history of anemia, DIC, and HELLP syndrome.

Patient Demographics	N=213 n (%) or median (range)
Age – yr (range)	33 (20-44)
Hispanic Ethnicity (%)	76 (37)
Race	
Black or African American	42 (20)
White	75 (35)
Asian or Native Hawaiian	16 (8)
American Indian or Alaskan Native	4 (2)
Multiracial	6 (3)
Unknown	70 (33)
Body Mass Index-- kg/m ²	
≤ 24.9	47 (22)
25 to 29.9	65 (31)
≥ 30	101 (47)
Gestational age	21w2d (14w0d-23w6d)
Cesarean Deliveries	
One	113 (53)
Two	61 (29)
Three	31 (15)
Four	7 (3)
Five+	1 (0)
Average QBL [†]	290mL (10-2550mL)

Table 1. Demographics for all patients who met inclusion criteria.

[†] Quantitative blood loss (QBL)

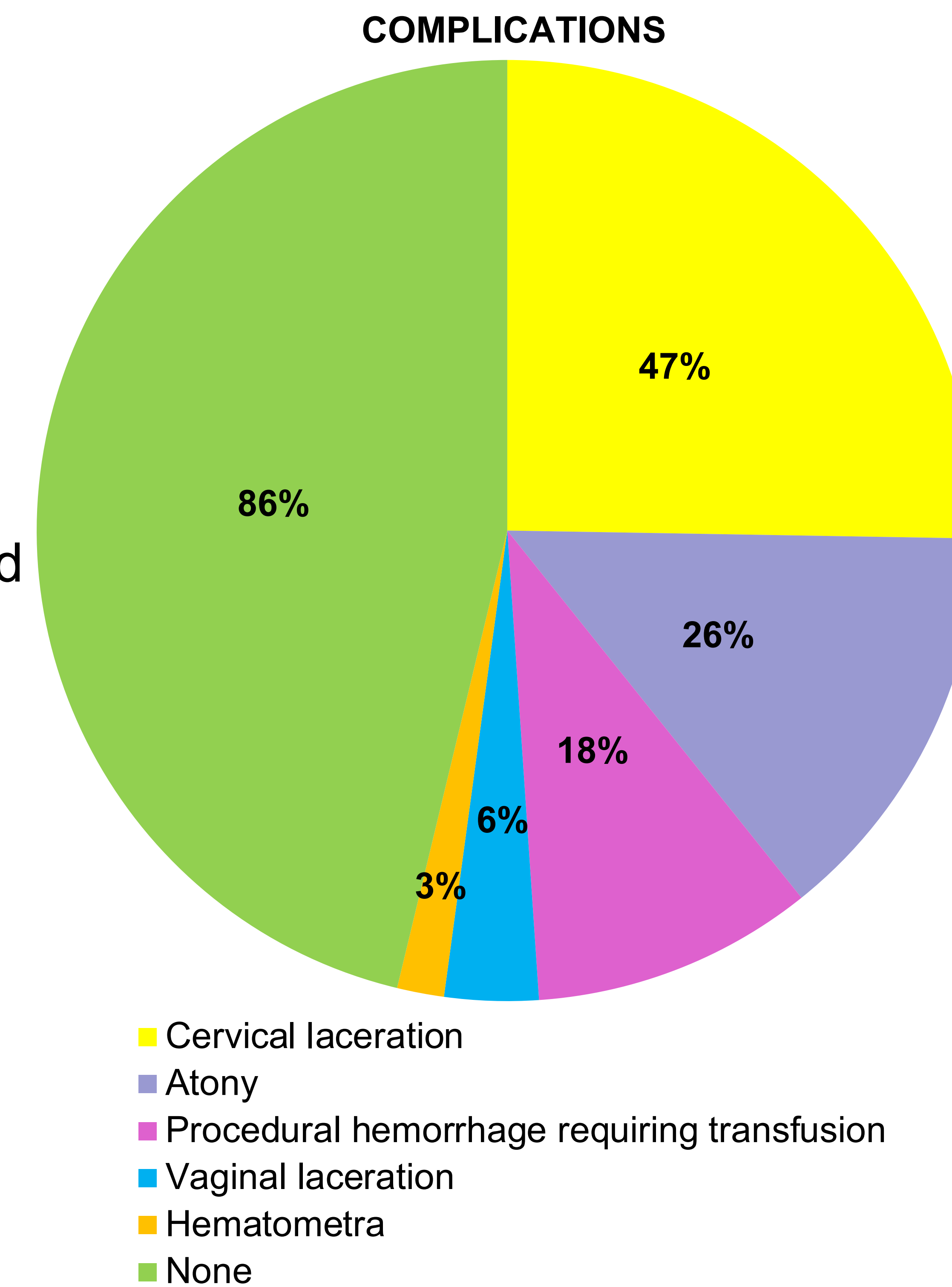


Figure 1. Percentage distribution of complications post-D&E procedure in patients with prior Cesarean delivery.

Complications	N=34 [‡]
Cervical laceration	16
Atony requiring ≥ 2 uterotonics	9
Procedural hemorrhage requiring transfusion	6
Vaginal laceration	2
Hematometra	1

Table 2. Number of patients per complication post-D&E.

[‡]5 patients experienced multiple complications.

Conclusions

- Our total complication rate was 14%, with most common complications being cervical laceration, atony, and procedural hemorrhage requiring transfusion.
- These complications indicate the importance of adequate screening tools to better quantify risks in order to inform patients with prior CD before their D&E procedure.

Next Steps

- Expand data collection to include all patients with a history of CD undergoing D&E from 2018-2021.
- Assess which factors are associated with an increased risk of complications, such as number of cesarean deliveries, gestational age, or body mass index.
- Examine US findings for markers that could predict adverse outcomes.

Reference

¹Frick AC, Drey EA, Diedrich JT, Steinauer JE. Effect of prior cesarean delivery on risk of second-trimester surgical abortion complications. *Obstet Gynecol.* 2010 Apr;115(4):760-764. doi: 10.1097/AOG.0b013e3181d43f42. PMID: 20308836.