WHAT'S NEW AND IMPORTANT IN ANTEPARTUM, POSTPARTUM, AND NEWBORN CARE

INDUCTION OF LABOUR

MATERNITY AND NEWBORN CARE PROGRAM COMMITTEE, CFPC

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OBJECTIVES

- Name the high priority and other indications for IOL
- Use the Bishop score to plan the method of IOL
- Identify management issues with IOL for women with hypertension or diabetes mellitus
- Discuss the issues raised by the ARRIVE trial

2017 CMPA & HIROC ANALYSIS OF 10 YRS OF MEDICO-LEGAL OBSTETRICAL 1,688 CASES. 5 MOST COMMON AREAS:

1. induction and augmentation of labour
2. assisted vaginal delivery
3. shoulder dystocia
4. decision to delivery time for CS
5. collaborative care

Fetal health surveillance was a common theme throughout these cases.

INDICATIONS FOR IOL: HIGH PRIORITY

- Severe preeclampsia at any GA, preeclampsia ≥ 37 weeks, eclampsia
- Significant maternal disease not responding to treatment
- Significant but stable antepartum hemorrhage
- Chorioamnionitis
- Term pre-labour rupture of membranes with maternal group B streptococcus colonization
- Suspected fetal compromise

INDICATIONS FOR IOL: OTHER INDICATIONS

- Pregnancies ≥ 41+0 weeks (see below)
- Uncomplicated twin pregnancy ≥ 38 weeks
- Diabetes mellitus (glucose control may dictate urgency)
- Alloimmune disease at or near term
- Oligohydramnios
- Gestational hypertension (≥ 38 weeks)
- Intrauterine fetal death
- Pre-labour rupture of membranes at or near term, group B streptococcus negative
- Logistical considerations (rapid labour, distance to hospital)
- Intrauterine death in a prior pregnancy (IOL performed to alleviate parental anxiety but no known medical or outcome advantage for mother or baby)

CASE 1: MARTINE

- 25 yr G^1P^0 at 37+5 weeks (Us at 9wks)
- No previous risk factors, GBS neg
- Asymptomatic other than recent swelling feet; FM normal
- BP 145/95 (over 4 hrs); SFH: 35; Cephalic; Bishop Score 3
- NST normal; US: growth, AFV and doppler N
- Lab: Hb 112, Plat. 119, AST 12, PCR: 50
- Diagnosis and recommendations for Martine?

MODIFIED BISHOP SCORE

	Score			
Factor	0	1	2	3
Dilatation	0	1–2 cm	3–4 cm	> 5 cm
Effacement (%) Length (cm)	0–30 >3	40–50 1–3	60–70 <1	> 80
Consistency	Firm	Medium	Soft	
Position	Posterior	Mid	Anterior	
Station	Sp −3 or above	Sp −2	Sp −1 or 0	Sp +1 or lower

Cervix unfavourable if Bishop score is ≤ 6

Favourable if Bishop score of > 6.

MARTINE²

- Martine consents to IOL
- What method to use?

MARTINE[3]

- Foley inserted and Oxytocin started
- Contractions increased
- Foley out in 3 hrs when ARM (clear)
- Full dilation 3 hrs later; SVD after 1 hr second stage
- 3rd Stage uncomplicated; blood loss normal, intact.
- What post partum care?

POST PARTUM CARE WITH PRE-ECLAMPSIA

- The peak time for appearance of hypertension is days 3 – 6
  - BP goal: systolic < 160 mm Hg and diastolic BP < 110 mm Hg
- Timing of first eclamptic seizure:
  - 50% before labour, 25% during, 25% early postpartum. (Rarely ≥2 d PP)
- Consider thromboprophylaxis if risks (obese., CS, etc.)
- ASA 162 at diagnosis of next pregnancy (USPSTF/ACOG: 81 @12 wks)
- Counsel that she is at increased risk of CV disease in later life

ASA FOR PREVENTION OF PREECLAMPSIA*

Risk Level	Risk Factors	Recommendation
High[1]	History of preeclampsia, especially when accompanied by an adverse outcome Multifetal gestation Chronic hypertension Type 1 or 2 diabetes Renal disease Autoimmune disease (systemic lupus erythematous, antiphospholipid syndrome)	Recommend low-dose aspirin if the patient has ≥1 of these high-risk factors
Moderate[2]	Nulliparity Obesity (body mass index >30 kg/m^2) Family history of preeclampsia (mother or sister) Sociodemographic characteristics (African American race, low socioeconomic status) Age ≥35 years Personal history factors (e.g., low birthweight or small for gestational age, previous adverse pregnancy outcome, >10-year pregnancy interval)	Consider low-dose aspirin if the patient has several of these moderate-risk factors§
Low	Previous uncomplicated full-term delivery	Do not recommend low-dose aspirin

[1]Single risk factors associated with greatest risk for preeclampsia (incidence ≥ 8% with ≥1 of these risk factors

[2]A combination of moderate-risk factors may identify women at high risk for preeclampsis

*USPTF 2018

WHEN TO INDUCE WITH HYPERTENSION

Chronic hypertension	**≥ 38 weeks**
Gestational hypertension	**≥ 37 weeks**
Preeclampsia without severe features (see below)	**37 weeks**
Preeclampsia with severe features: • **Inability to control maternal blood pressure** • **Increasing maternal organ dysfunction (hepatic, renal, neurologic symptoms, HELLP)** • **Fetal indication for delivery**	**Deliver regardless of gestational age.**

CASE 2: SHREYA

- 36 year old G3P2, BMI 37; 2HrGTT+ at 23 wks
- On insulin (N and ac Humalog); BS control good
- BP, FM and serial US and NST's normal
- Now at 37 wks
- What advice would you give her regarding induction?

DIABETES IOL RECOMMENDATIONS* (GUIDELINES VARY)

- Monitor maternal glucose
- Fetal assessment (growth and fluid) to assess glycemic control
- For medically treated GDM, surveillance at 36 wks and IOL prior to 40 wks
- For macrosomia or polyhydramnios, treat as inadequate glycemic control
- Evidence is less clear for diet controlled GDM and conservative management as an alternative to increased surveillance and induction is not associated with worse outcome

*Dr. H Bos, September 2018

CASE 3: DESTINY

- 32 year G2P0 woman at 38 weeks
- No maternal/fetal risk factors
- She has read a recent study saying it is ok to have an elective IOL and wants to go ahead.
- How do you respond?

LABOR INDUCTION VERSUS EXPECTANT MANAGEMENT IN LOW-RISK NULLIPAROUS WOMEN (ARRIVE TRIAL)

Background: Perinatal/maternal consequences of IOL at 39 wks for low-risk nulliparous women are uncertain.

Method: multicenter, randomized low-risk nulliparas at to IOL at 39^0 - 39^4 v.s. Expectant management; 1°outcome: PN death/severe neonatal comp.; 2°: C/S

Results: 50,00 screened: 3062 to IOL,; 3044 to EM.

- 1° outcome :4.3% with IOL and in 5.4% in EM(RR 0.80; 95% [CI], 0.64 to 1.00).
- C/S significantly lower with IOL vs EM (18.6% vs. 22.2%; RR 0.84; 95% CI, 0.76 to 0.93).

Conclusions

- IOL at 39 weeks in low-risk NPs did not affect composite adverse perinatal outcome, but it did result lower frequency of C/S

Grobman WA, etal. A randomized trial of elective induction of labor at 39 weeks compared with expectant management of low-risk nulliparous women. Am J Obstet Gynecol 2018; 218:S601.

SOGC Statement - ARRIVE Trial

Dear colleagues,

The publication of the ARRIVE trial, on elective induction in nulliparous women with a singleton low risk pregnancy at 39 weeks, has elicited a great deal of coverage and commentary. Our clinical committees have reminded us that this, as with any study, needs to be interpreted with care. The induction of labour guideline, which covers both current indications as well as methods, is under revision and this study will be factored into the statements and recommendations arising from that guideline.

A measured interpretation of the results of this study does enable healthcare providers to use their best clinical judgment in the timing of indicated induction in low risk nulliparous women where gestational age is securely known by early ultrasound.

However, it is not appropriate to recommend elective induction solely to reduce the risk of caesarean section in an otherwise low risk nulliparous patient at this time.

Grobman WA, etal. A randomized trial of elective induction of labor at 39 weeks compared with expectant management of low-risk nulliparous women. Am J Obstet Gynecol 2018; 218:S601