

CLINICAL PRACTICE GUIDELINES
FOR
PRACTITIONERS

Fetal Macrosomia

“To date, no management algorithm involving selective interventions based on estimates of fetal weight has demonstrated efficacy in reducing the incidence of either shoulder dystocia or brachial plexus injury...planned interventions based on estimates of fetal weight do not reduce the incidence of shoulder dystocia and do not decrease adverse outcomes attributable to fetal macrosomia.”

--Sacks and Chen, Obstetrical and Gynecological Survey 2000

“Current guidelines state that a planned cesarean delivery for a diabetic pregnant woman whose fetal weight estimates exceed 4250 to 4500 gm may be reasonable...”

--ACOG Practice Patterns Number 7, October 1997

“With an estimated fetal weight greater than 4500 gm, a prolonged second stage of labor or arrest of descent in the second stage is an indication for cesarean delivery”

--ACOG Practice Bulletin Number 22, November 2000

“For almost all macrosomic pregnancies including diabetic mothers, previous deliveries with shoulder dystocia, or women considering VBAC, expectant management with vigilance for evidence of fetopelvic disproportion will have optimal results.”

--Zamorski and Biggs, American Family Physician 2001

Risk Factors for Fetal Macrosomia:

- Maternal diabetes
- Maternal impaired glucose intolerance
- Multiparity
- Previous macrosomic infant
- Prolonged gestation
- Maternal obesity
- Excessive maternal weight gain
- Male fetus
- Parental stature
- Maternal age
- Maternal race
- Paternal birth weight
- Need for labor augmentation
- Prolonged second stage

Forceps should be used cautiously - if at all - with fetal macrosomia.

Abnormal labor patterns and diagnostic criteria

Labor Pattern	Nulligravida	Multipara
Protraction disorders		
Dilation	<1.2 cm/h	<1.5 cm/h
Descent	<1.0 cm/h	<2.0 cm/h
Arrest Disorders		
Dilation	>2 hours	>2 hours
Descent	>1 hour	>1 hour

From ACOG Technical Bulletin No. 218

➔ Prepare and drill labor and delivery staff in the basics and management of shoulder dystocia, including:

- ⇒ McRoberts maneuver
- ⇒ Suprapubic pressure on the impacted shoulder
- ⇒ Wood's maneuver
- ⇒ Delivery of the posterior arm
- ⇒ Zavanelli maneuver

Physician focus for delivery of the macrosomic fetus:

- Emphasize preparedness of staff for management of shoulder dystocia.

References/Resources:

Fetal Macrosomia. ACOG Practice Bulletin Clinical Management Guidelines for Obstetrician-Gynecologists. Number 22, November 2000.

Berkus MD, Conway D, Langer O. The Large Fetus. *Clinical Obstetrics and Gynecology* 1999;42(4):766-784.

Conway DL, Oded L. Elective delivery of infants with macrosomia in diabetic women: Reduced shoulder dystocia versus increased cesarean deliveries. *Am J Obstet Gynecol* 1998;178(5):922-25.

Dystocia and the Augmentation of Labor. ACOG Technical Bulletin. Number 218, December 1995.

Gonen R, Bader D, Ajami M. Effects of a policy of elective cesarean delivery in cases of suspected fetal macrosomia on the incidence of brachial plexus injury and the rate of cesarean delivery. *Am J Obstet Gynecol* 2000;183:1296-300.

Rasmussen TL. The Use of Ultrasound to Identify Fetuses with Macrosomia in Diabetic Pregnancies: A Review of Current Literature. *Journal of Diagnostic Medical Sonography* 2000;16(2):76-79.

Sacks DA, Chen W. Estimating Fetal Weight in the Management of Macrosomia. *Obstetrical and Gynecological Survey* 2000;55(4):229-239.

Shoulder Dystocia. ACOG Practice Patterns, Evidence-Based Guidelines for Clinical Issues in Obstetrics and Gynecology. Number 7, October 1997.

Sokol RJ, Chik L, Dombrowski MP, Zador IE. Correctly identifying the macrosomic fetus: Improving ultrasonography-based prediction. *Am J Obstet Gynecol* 2000;182:1489-95.

Zamorski MA, Biggs WS. Management of Suspected Fetal Macrosomia. *American Family Physician* 2001;63:302-6.

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