leads to a propensity for pathologic misdiagnosis. A recent rereview of pathologic slides from 1,000 cases of surgically proven endometriosis found a 0.3% rate of adenosarcoma in cases of extraovarian endometriosis.2

The hypothesis that chronic stimulation from endogenous or exogenous estrogen may increase the likelihood of endometriosis-associated carcinogenesis has been explored. A study by Zanetta et al4 found that the most common malignancy arising from endometriosis was endometrioid adenocarcinoma. The management of adenosarcoma is primarily surgical. A recent review by Verschraegen et al6 found a response rate of 92.5% after primary therapy. The majority of patients were treated with surgical removal. Smaller percentages of patients were also treated with hormonal therapy, chemotherapy, and radiotherapy. A recurrence rate of 38% was noted. Of interest, their review did not find any patients with endometriosis-associated adenosarcoma. In our case no adjunctive therapy was given due to the negative margins. However, the patient’s hormone replacement was discontinued because of the potential association between exogenous hormones and development of adenosarcoma.

Although a rare entity, adenosarcoma arising in inguinal endometriosis should be included in the differential diagnosis for those patients with a history of endometriosis and chronic unopposed estrogen therapy who present with a groin mass. The recurrence of a pelvic mass in these patients may warrant a re-review of pathology slides from prior surgeries.

REFERENCES

A Modified Technique to Deliver the Posterior Arm in Severe Shoulder Dystocia

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BACKGROUND: Posterior arm delivery resolves almost all cases of severe shoulder dystocia. However, if the posterior arm is extended or lies under the fetus’s body, the usually described technique for its delivery may not be practicable.

CASE: A young, multiparous woman with type II diabetes had a low-midcavity vacuum delivery. Severe shoulder dystocia was encountered. The usual maneuvers, including the usual technique described for delivery of the posterior arm, were unsuccessful. A modified technique for delivery of the posterior arm was used.

CONCLUSION: Posterior axillary traction will deliver the posterior arm when it is not accessible by the usual technique.
An earlier step in severe shoulder dystocia. If the shoulders cannot be rotated or if the posterior arm cannot be delivered, the obstetrician—and the fetus—are in a desperate situation. One is left with extreme measures such as cephalic replacement or symphysiotomy. This case described a useful technique for delivering the infant in this situation.

CASE

Type II diabetes had been diagnosed in a patient at age 12 years. The first pregnancy occurred at age 17. During that pregnancy, there had been no effort by the mother to keep the blood glucose levels normal. Labor was induced at 38 weeks of gestation. The second stage was 1 hour 26 minutes long. There was spontaneous delivery of the head. Shoulder dystocia was resolved with the McRoberts maneuver and firm traction. The newborn weighed 3,560 grams and had Apgar scores of 7 and 8. There was a mild Erb's palsy of the anterior arm that resolved before discharge.

The second pregnancy occurred at age 19. The mother refused to take insulin for high blood glucose but agreed to take glyburide; however, the glucose control was poor. At 37 weeks of gestation, labor was induced. The estimated fetal weight was 4,000 g. In the second stage of labor, the fetal heart rate was deemed nonreassuring. The vertex was left occipitotransverse at +2 station. The Kiwi vacuum was applied, and the head was delivered with one pull, although the Ritgen maneuver was needed to deliver the chin over the perineum. The chin retracted against the perineum, and there was no external restitution.

The McRoberts maneuver, suprapubic pressure, and one attempt at downward traction failed to deliver the anterior shoulder. Using the Rubin maneuver to press the anterior shoulder toward the chest was unsuccessful. A modified Woods maneuver failed also. It was difficult to insert the hand into the birth canal, and when this was accomplished, neither the elbow nor the forearm of the posterior arm could be reached.

The shoulder dystocia was finally resolved by delivering the posterior arm using axillary traction, after which the anterior shoulder came easily. Total elapsed time from delivery of the head to delivery of the newborn was 4 minutes. The newborn weighed 4,150 grams and had a left humeral fracture that healed well with splinting. The Apgar scores were 2 and 7, and the cord artery pH was 7.23.

COMMENT

The author has been summoned urgently on several occasions to help colleagues deal with severe shoulder dystocia when the usual maneuvers have failed. The usual problem has been the inability to reach the posterior arm to deliver it. In each case, the author was able to deliver the posterior arm using a technique not described in current English-language textbooks or articles.

The technique usually described to deliver the posterior arm involves two steps. The first is the insertion of the obstetrician’s hand into the sacral hollow; the right hand is used if the fetal back is to the mother’s right, and vice-versa. The next step is to identify the posterior humerus and follow it to the elbow, which is then flexed and swept across the chest. The wrist is then grasped and the arm extended along the side of the face delivering the posterior arm from the vagina. The usual diagrams in the textbooks depict the posterior forearm lying across the chest or abdomen, but if the arm is fully extended or if the fetus is lying on its posterior arm, then it may not be possible to reach the elbow or forearm.

The modified technique involves delivering the posterior shoulder before delivering the posterior arm. To make access easier to the posterior pelvis, an assistant holds (not pulls) the fetus’s head flexed upward toward the anterior shoulder. An episiotomy is helpful if the perineum is rigid. The obstetrician gets on one knee because downward traction will be necessary. Regardless of which side the fetal back is on, the obstetrician’s right middle finger is placed into the fetus’s posterior axilla from the left side of the pelvis and the left middle finger is placed into the posterior axilla from the right side of the pelvis. By using the two middle fingers in the axilla, traction is made outward and downward on the posterior shoul-
der following the curve of the sacrum. Once the shoulder has emerged from the pelvis, the posterior arm is delivered. At other times, the shoulder may not actually be delivered first but instead is brought down low enough in the pelvis that the posterior arm can be grasped and brought out (Fig. 1).

The technique has its drawbacks. Fracture of the fetus’s posterior humerus is frequent, but fractures heal well. For the mother, tears of the anal sphincter and rectum often have to be repaired.

Posterior axillary traction is by no means an original technique and has been described in at least two publications in the past decades, but it does not seem to have been popularized.

Success of this technique, however, presupposes that the posterior shoulder is accessible and is not held up by the sacral promontory. If the anterior shoulder is impacted by the symphysis pubis and the posterior shoulder is above the sacral promontory—in other words, if neither shoulder is in the pelvis—only cephalic replacement or symphysiotomy is likely to resolve the problem.

REFERENCES

Factor VIIa in Puerperal Hemorrhage With Disseminated Intravascular Coagulation

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BACKGROUND: Puerperal hemorrhage associated with disseminated intravascular coagulation is a life-threatening obstetric emergency. Recombinant factor VIIa is a novel hemostatic agent, but more information concerning its dosage, efficacy, and safety is required.

CASE: A primigravida developed preeclampsia complicated by disseminated intravascular coagulation and severe puerperal hemorrhage after an emergency cesarean at 35\(\frac{1}{2}\) weeks of gestation. Two doses of recombinant factor VIIa controlled the hemorrhage without any thrombotic complications.

CONCLUSION: Recombinant factor VIIa should be considered when conventional methods fail to control puerperal hemorrhage complicated by disseminated intravascular coagulation. A review of 17 similar cases treated with this hemostatic agent revealed that in 76% a single dose ranging from 16.7 to 120 µg/kg controlled bleeding. Guidelines are needed to help obstetricians use recombinant factor VIIa effectively in such emergencies.

(Obstet Gynecol 2006;108:757–61)

Puerperal hemorrhage associated with disseminated intravascular coagulation (DIC) is a life-threatening obstetric emergency. Disseminated intravascular coagulation is characterized by acute widespread activation of coagulation and intravascular deposition of fibrin resulting in thromboembolic complications. Concomitant diffuse hemorrhage occurs because of overwhelming consumption of platelets and coagulation factors. The management of puerperal hemorrhage associated with DIC involves aggressive resuscitation with blood products and identification and control of bleeding. First-line pharmacological uterotonics include oxytocin, ergometrine, and prostaglandin F\(_2\alpha\). Further options include insertion of a B-Lynch suture, pelvic packing, ligation of uterine or internal iliac arteries, uterine or internal iliac artery embolization, or hysterectomy. Recently, recombinant factor VIIa (Novo Nordisk,