Extracts from Pertinent Current Literature

Antibiotics for Early Onset Neonatal Infection: a Summary of the Nice Guideline 2012

Muggleston MA,Murphy MS,Visintin C, Howe DT, Turner MA. TOG 2014;16:87-92

Perineal lacerations can be a consequence of vaginal birth. Those involving the anal sphincter complex (third-degree lacerations), the anal mucosa (fourth-degree lacerations), or both are termed obstetric anal sphincter injuries. The incidence of obstetric anal sphincter injuries after vaginal delivery is reported widely ranging from 0.5–11%. The highest probability of occurrence is related to instrumental delivery, particularly forceps in the primiparous delivering a neonate in excess of 4 kg and in the occiput-posterior position. An obstetric anal sphincter injury that is not immediately recognized or appropriately repaired can lead to distressing, physical and psychosocial sequelae.

The primary objective of this study was to estimate the rate of recurrent obstetric anal sphincter injuries in subsequent pregnancies. This was a retrospective analysis of prospectively collated data from a large perinatal database between 2006 and 2010. Primiparous vaginal deliveries with an obstetric anal sphincter injury were identified and tracked to identify their subsequent delivery characteristics and perineal outcomes. A primary obstetric anal sphincter injury occurred in 5.3% of primiparous vaginal deliveries (9,857/186,239); of those patients 2,093 had a subsequent delivery, and 91.9% delivered vaginally (1,923/2,093). The recurrent obstetric anal sphincter injury rate was also found to be 5.3% (102/1,923). The adjusted odds ratios (ORs) for primary obstetric anal sphincter injuries were significantly increased in large-for-gestational-age neonates for both third-degree laceration (adjusted OR 2.1, 95% confidence interval [CI] 1.9–2.2) and fourth-degree laceration (adjusted OR 2.7, 95% CI 2.3–3.1) in almost all obstetric interventions studied. The adjusted ORs for recurrent obstetric anal sphincter injuries were significant for large-for-gestational-age (25/102, adjusted OR 2.2, 95% CI 1.3–3.6) and instrumental deliveries (15/102, adjusted OR 2.4, 95% CI 1.2–4.6).

The main strength of this study was the large population size with more than half a million deliveries among women with universal health care insurance. By using a regional database, the risk of selection and observer bias was reduced. With that being said, the 5-year study period may have included women with short inter-pregnancy intervals, which may be a confounding factor for recurrent obstetric anal sphincter injury. Alternatively, some primary obstetric patients with anal sphincter injury may have found the delivery traumatic, resulting in pregnancy delay outside the study interval or avoiding subsequent vaginal delivery altogether.

Other limitations of this study included no reports of subjective or quality-of-life outcomes and no information on the type of episiotomy or obstetric anal sphincter injury repair such that repair techniques (end-to-end or overlapping) and suture materials used could not be compared. Predicting those women at risk of recurrent obstetric anal sphincter injury continues to pose a challenge. Further work could be focused on the development of a prediction model that factors in esti-

mated fetal weight, perineal length, and endoanal ultrasound parameters. Those found to be at high risk of recurrent obstetric anal sphincter injuries could then be counseled and offered elective cesarean delivery. All obstetric interventions, except for induction of labor, increased the risk of sustaining a primary obstetric anal sphincter injury with the use of forceps being the most significant risk factor.

The results of the present study should help direct patients and obstetricians on planning for future deliveries after a primary obstetric anal sphincter injury has been sustained.

Dr Arshia Aslam. WMO. Holy Family Hospital Rawalpindi

Recurrence of Obstetric Third-Degree and Fourth-Degree Anal Sphincter Injuries

Boggs, Edgar W, Howard U, Marcel M, Colleen D. Obstetrics & Gynecology December 2014; 124(6):1128-1134.

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Contributed by: Dr Sobia Nadeem

Scientific Editor and Managing Assistant (JSOGP)

Letrozole Versus Clomiphene for Infertility in the Polycystic Ovary Syndrome

Richard S, Robert G, Michael P, Christos C, William D, Peter C, et al
N Engl J Med 2014; 371:119-129

The polycystic ovary syndrome, which is diagnosed on the basis of hyperandrogenism, oligo-ovulation with associated oligomenorrhea, and polycystic ovaries on ultrasonography, affects 5 to 10% of reproductive-age women and is the most common cause of anovulatory infertility. Clomiphene citrate is a selective oestrogen-receptor modulator that antagonizes the negative feedback of oestrogen at the hypothalamus with a consequent increase in ovarian stimulation by endogenous gonadotropin, has been used for this indication for decades. Letrazole is an aromatase inhibitor, which blocks oestrogen synthesis by directly affecting hypothalamic–pituitary–ovarian function can theoretically increase pregnancy rates. However, potential foetal teratogenicity remains a concern with letrozole.

Although Clomiphene is the current first-line infertility treatment in women with the polycystic ovary syndrome, but this study aims to prove that aromatase inhibitors, including letrozole, might result in better pregnancy outcomes. In this double-blind, multicenter trial, 750 women were assigned, in a 1:1 ratio, to receive letrozole or clomiphene for up to five treatment cycles, with visits to determine ovulation and pregnancy, followed by tracking of pregnancies. The polycystic ovary syndrome has been defined according to modified Rotterdam criteria (anovulation with either hyperandrogenism or polycystic ovaries). Participants were 18 to 40 years of age, had at least one patent fallopian tube and a normal uterine cavity, and the male with a sperm concentration of at least 14 million per milliliter and with the primary outcome being live birth during the treatment period.

Women who received letrozole had more cumulative live births than those who received clomiphene (103 of 374 [27.5%] vs. 72 of 376 [19.1%], P=0.007; rate ratio for live birth, 1.44; 95% confidence interval, 1.10 to

1.87) without significant differences in overall congenital anomalies, though there were four major congenital anomalies in the letrozole group versus one in the clomiphene group (P=0.65). The cumulative ovulation rate was higher with letrozole than with clomiphene (834 of 1352 treatment cycles [61.7%] vs. 688 of 1425 treatment cycles [48.3%], P<0.001). There were no significant differences between-the two groups in pregnancy loss (49 of 154 pregnancies in the letrozole group [31.8%] and 30 of 103 pregnancies in the clomiphene group [29.1%]) or twin pregnancy (3.4% and 7.4%, respectively). Clomiphene was associated with a higher incidence of hot flushes, and letrozole was associated with higher incidences of fatigue and dizziness. Rates of other adverse events were similar in the two treatment groups.

This study showed that letrozole was superior to clomiphene as a treatment for anovulatory infertility in women with the polycystic ovary syndrome. Letrozole was associated with higher ovulation and live-birth rates. However, further studies with larger number of infants are needed to determine the teratogenic risks with letrozole relative to those with other infertility therapies.

Contributed by: Dr Sobia Nadeem

Scientific Editor and Managing Assistant (JSOGP)

ERRATUM

We apologise for the printing error on p136 of JSOGP Vol.4, No.3—It was supposed to be:

OUR MOTTO IS

Editors