

Depression From Pregnancy Loss Lingers

BY ESTHER FRENCH

FROM THE BRITISH JOURNAL OF PSYCHIATRY

Women who have lost a baby in a miscarriage or stillbirth can experience persistent depression during a later pregnancy that continues even after the birth of a healthy baby.

In a study of 13,133 women who gave birth in the early 1990s in southwest England and 21% had experienced miscarriages or stillbirths, “previous prenatal loss showed a persisting prediction of depressive and anxiety symptoms well after what would conventionally be defined as the postnatal period,” reported Emma Robertson Blackmore, Ph.D., of the University of Rochester Medical Center, New York, and her associates (*Br. J. Psychiatry* 2011 March 7 [doi:10.1192/bjp.bp.110.083105]).

The study builds on previous findings about increased anxiety and depression in pregnant women who had previously lost a baby in a miscarriage or stillbirth “by showing that the impact persists well past the subsequent pregnancy and despite the birth of a healthy child.” Because depression is very treatable, Dr. Blackmore emphasized in an interview the need for a heightened focus on identifying women with a previous prenatal loss and routine-

ly screening them for depression.

The study, which drew its large sample from the Avon Longitudinal Study of Parents and Children (ALSPAC), measured data from six assessments, two prenatal (at 18 and 32 weeks) and four post partum (at 8 weeks and 8, 21, and 33 months). In the first assessment, the women self-reported any previous miscarriages and stillbirths. At each assessment stage, the women self-reported maternal anxiety using the Crown-Crisp Experiential Index (CCEI) and depression using the Edinburgh Postnatal Depression Scale (EPDS).

Covariates included “maternal age at initial interview, currently living with husband or partner, number of living children, education level, ethnicity, and use of tobacco and alcohol during the first 3 months of pregnancy,” previous depressive episodes, birth weight and gestational age, and a household crowding index. The investigators combined stillbirths and miscarriages after finding no significant difference in results.

Dr. Blackmore, who is in the department of psychiatry, said that she has done extensive work in postpartum depression, but she “was actually quite surprised by the findings” because it never crossed her mind before to ask women about previous loss. She had focused instead on factors

such as any history of depression.

She explained how women who had a previous loss can “get incredibly anxious leading up to the gestational point” during which they lost the baby, which is when an ob.gyn. can step in and alleviate anxiety about physical symptoms.

The investigators did not report any relevant financial disclosures. The U.K. Medical Research Council, the Wellcome Trust, and the University of Bristol currently provide core support for ALSPAC. This particular study received funding from the National Institutes of Health. ■

Miscarriages Require More Sensitivity

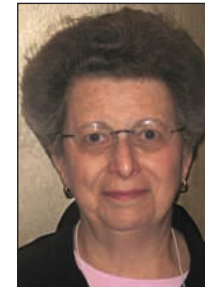
Dr. Nada Stotland sees this study as an important reminder for physicians not to trivialize miscarriages. “Sometimes medical professionals don’t know what to say,” she said, and they may unintentionally hurt the patient by saying “You didn’t even know the baby” or “Have another one.”

Because miscarriage is so common, Dr. Stotland thinks that physicians should be screening every woman for depression, whether or not she has risk factors.

The absence of cultural rituals for miscarriages can prevent the patient from getting closure in a time

of grief. Dr. Stotland noted how Americans place importance on retrieving the bodies of fallen soldiers, but “we have nothing for miscarriage.” A physician’s sensitivity to a patient’s desire to name the child or hold a memorial service can help formalize this loss.

“It’s just a matter of not saying something dismissive,” she said in an interview.



DR. STOTLAND is a professor of psychiatry and obstetrics and gynecology at Rush Medical College in Chicago. She did not report any relevant financial disclosures.

VIEW ON THE NEWS

Early Postpartum Depression: Tryptophan, Tyrosine May Help

BY MICHELE G. SULLIVAN

FROM THE WORLD CONFERENCE ON WOMEN'S MENTAL HEALTH

MADRID – Beefing up a pregnant woman’s diet with tryptophan and tyrosine might one day help avoid the “baby blues” – or even a downward slide into postpartum depression.

The proteins – found naturally in eggs, poultry, milk

Recent work in humans shows that MAO-A in postpartum women is inversely related to estrogen. This relationship, in which estrogen declines as MAO-A rises, could underlie the feelings of sadness that affect up to 75% of women around postpartum days 3-6, said Dr. Meyer, an associate professor in the psychiatry department at the University of Toronto.

Since he and his colleagues published their initial work on the MAO-A/estrogen connection last May (*Arch. Gen. Psychiatry* 2010;67:468-74), Dr. Meyer has begun to investigate whether nutritional supplementation with the precursor proteins could boost a woman’s mood-regulating neurotransmitters enough to ward off the enzyme’s postpartum effects.

The first step of that research is to examine how tyrosine and tryptophan – the proteins under investigation – affect breast milk. “If we see that there is a negligible level in milk relative to plasma, our next step will be to investigate whether their administration could attenuate postpartum blues,” he said.

The ultimate goal, however, would not be yet another prenatal supplement. “Ideally, instead of giving a powder as we’re doing now [during research], we could offer some specific dietary recommendations – maybe recommending that a pregnant woman should have a diet rich in tryptophan and tyrosine.”

Such an intervention would probably be more acceptable than a medication, because it would circumvent concerns about drug excretion into breast milk, he added.

Dr. Meyer’s research is based on previous animal studies – including his own – that show a precipitous drop in plasma estrogen within 48 hours of birth. Almost simultaneously and nearly in concert, Dr. Meyer said, MAO-A levels begin to rise. Plasma estrogen reaches its nadir around day 3, while MAO-A peaks around day 4. “Coincidentally, this is the typical time of postpartum

sadness – this period of low mood, irritability, and sleeplessness,” Dr. Meyer said. He also said that his work represents the only MAO-A/estrogen investigation in humans.

That study looked at 15 immediately postpartum women and 15 age-matched controls, all of whom underwent positron-emission tomography with the radiotracer carbon 11-labeled harmine. The compound is extremely reliable for identifying brain levels of MAO-A, and has a 20-minute half-life, making it a good choice for lactating women, he noted. To further allay safety concerns, breastfeeding was delayed for 12 half-lives of the radiotracer, with a test sample confirming that the milk was clear. Geiger counters placed on the mothers’ chests also ensured that background radiation was normal.

The new mothers all were scanned on postpartum days 4-6 – the most common time for symptoms of postpartum sadness to appear. The scans revealed 43% more MAO-A bound to the radiotracer in the postpartum group than in the controls, with significant differences seen in all the brain regions measured (prefrontal cortex, anterior cingulate cortex, anterior temporal cortex, thalamus, dorsal putamen, hippocampus, and midbrain).

The findings mesh with a wealth of literature confirming the relationship between depression, low neurotransmitter levels, and MAO-A levels, Dr. Meyer noted, as well as with an entire class of antidepressants aimed at inhibiting the enzyme.

“I’m not saying this is the only mechanism” underlying postpartum mood changes, he noted. “But this is an important one, because there is a strong magnitude of effect, and MAO-A is a target that directly affects mood. This is something we should be looking at.”

“We give women all kinds of recommendations during pregnancy,” such as iron to prevent anemia and folate to prevent neural tube defects. “But no one has ever said to a woman, ‘Look, there is a biological underpinning for the sadness you might feel after delivery, and here is something we might be able to do about it.’” ■

VITALS

Major Finding: Scans revealed 43% more monamine oxidase across all brain regions in women during postpartum days 4-6, compared with those in controls.

Data Source: A case-control study of 15 postpartum women and 15 matched controls at a tertiary care academic psychiatric hospital.

Disclosures: The initial study was funded by the Canadian Institutes of Health Research and other national Canadian health alliances. Dr. Meyer said he has no financial conflicts.

products, and some nuts and seeds – are important precursors of the mood-regulating brain monoamines dopamine, serotonin, and norepinephrine. Boosting them before giving birth could provide just enough cushion to counteract the effects of increased monoamine oxidase A (MAO-A). MAO-A rises sharply in the week after childbirth, metabolizing these neurotransmitters at a highly increased rate, which probably plays a key role in the emotional dysregulation many women experience, Dr. Jeffrey Meyer said at the conference.

“What we are emphasizing now in our research is trying to compensate for this increased MAO-A metabolism of serotonin, norepinephrine, and dopamine,” he said. “Giving these precursor proteins might be a potential strategy to lower the intensity of the postpartum ‘blues’ and possibly lead to a treatment for postpartum depression.”