VIRGINIA HOMEBIRTH MIDWIFERY
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MIDWIVES WITH A PURPOSE

Placenta Encapsulation

Placenta encapsulation can help you in your postpartum period. We know that your placenta, once encapsulated, contains your own natural hormones and is made just for you! Placenta encapsulation can balance your hormonal system, replenish your iron levels, give you more energy, lessen your postpartum bleeding, increase your milk production, and prevent postpartum depression.

Placental encapsulation can be done in your home within the first week of your baby's life – to ensure that you are able to ingest the hormones that you need as a new mom.

There is a cost for this process. Ask Hayley or Mary about it at your next appointment.

Following is some good research on why placental encapsulation is a good option for new moms!

Placenta as Lactagagon

Soykova-Pachnerova E, et. al.(1954). Gynaecologia 138(6):617-627.

An attempt was made to increase milk secretion in mothers by administration of dried placenta per os. Of 210 controlled cases only 29 (13.8%) gave negative results; 181 women (86.2%) reacted positively to the treatment, 117 (55.7%) with good and 64 (30.5%) with very good results. It could be shown by similar experiments with a beef preparation that the effective substance in placenta is not protein. Nor does the lyofilised placenta act as a biogenic stimulator so that the good results of placenta administration cannot be explained as a form of tissue therapy per os. The question of a hormonal influence remains open. So far it could be shown that progesterone is probably not active in increasing lactation after administration of dried placenta. This method of treating hypogalactia seems worth noting since the placenta preparation is easily obtained, has not so far been utilized and in our experience is successful in the majority of women.

Placentophagia: A Biobehavioral Enigma

KRISTAL, M. B. NEUROSCI. BIOBEHAV. REV. 4(2) 141-150, 1980.

Although ingestion of the afterbirth during delivery is a reliable component of parturitional behavior of mothers in most mammalian species, we know almost nothing of the direct causes or consequences of the act. Traditional explanations of placentophagia, such as general or specific hunger, are discussed and evaluated in light of recent experimental results. Next, research is reviewed which has attempted to distinguish between placentophagia as a maternal behavior and placentophagia as an ingestive behavior. Finally, consequences of the behavior, which may also be viewed as ultimate causes in an evolutionary sense, are considered, such as the possibility of beneficial effects on maternal behavior or reproductive competence, on protection against predators, and on immunological protection afforded either the mother or the young.

Placenta for Pain Relief:

Placenta ingestion by rats enhances y- and n-opioid antinociception, but suppresses A-opioid antinociception
Jean M. DiPirro*, Mark B. Kristal

Ingestion of placenta or amniotic fluid produces a dramatic enhancement of centrally mediated opioid antinociception in the rat. The present experiments investigated the role of each opioid receptor type (A, y, n) in the antinociception-modulating effects of Placental Opioid-Enhancing Factor (POEF—presumably the active substance). Antinociception was measured on a 52 jC hotplate in adult, female rats after they ingested placenta or control substance (1.0 g) and after they received an intracerebroventricular injection of a y-specific ([D-Pen2,D-Pen5]enkephalin (DPDPE); 0, 30, 50, 62, or 70 nmol), A-specific ([D-Ala2,N-MePhe4,Gly5-ol]enkephalin (DAMGO); 0, 0.21, 0.29, or 0.39 nmol), or n-specific (U-62066; spiradoline; 0, 100, 150, or 200 nmol) opioid receptor agonist. The results showed that ingestion of placenta potentiated y- and n-opioid antinociception, but attenuated A-opioid antinociception. This finding of POEF action as both opioid receptor-specific and

complex provides an important basis for understanding the intrinsic pain-suppression mechanisms that are activated during parturition and modified by placentophagia, and important information for the possible use of POEF as an adjunct to opioids in pain management. D 2004 Elsevier B.V. All rights reserved.

Effects of placentophagy on serum prolactin and progesterone concentrations in rats after parturition or superovulation.

Blank MS, Friesen HG.: J Reprod Fertil. 1980 Nov;60(2):273-8.

In rats that were allowed to eat the placentae after parturition concentrations of serum prolactin were elevated on Day 1 but concentrations of serum progesterone were depressed on Days 6 and 8 post partum when compared to those of rats prevented from eating the placentae. In rats treated with PMSG to induce superovulation serum prolactin and progesterone values were significantly ($P < 0.05$) elevated on Days 3 and 5 respectively, after being fed 2 g rat placenta/day for 2 days. However, feeding each rat 4 g placenta/day significantly ($P < 0.02$) lowered serum progesterone on Day 5. Oestrogen injections or bovine or human placenta in the diet had no effect. The organic phase of a petroleum ether extract of rat placenta (2 g-equivalents/day) lowered peripheral concentrations of progesterone on Day 5, but other extracts were ineffective. We conclude that the rat placenta contains orally-active substance(s) which modify blood levels of pituitary and ovarian hormones.

Postpartum depression attributed to low levels of corticotropin-releasing hormone after placenta is gone

Many new mothers feel depressed for weeks after giving birth. Physicians have vaguely attributed this malaise to exhaustion and to the demands of motherhood. But a group of researchers at the National Institutes of Health has found evidence for a more specific cause of postpartum blues. New mothers, the researchers say, have lower than normal levels of a stress-fighting hormone that earlier studies have found helps combat depression.

When we are under stress, a part of the brain called the hypothalamus secretes corticotropin-releasing hormone, or CRH. Its secretion triggers a cascade of hormones that ultimately increases the amount of another hormone - called cortisol - in the blood. Cortisol raises blood sugar levels and maintains normal blood pressure, which helps us perform well under stress. Normally the amount of cortisol in the bloodstream is directly related to the amount of CRH released from the hypothalamus. That's not the case in pregnant women.

During the last trimester of pregnancy, the placenta secretes a lot of CRH. The rise is so dramatic that CRH levels in the maternal bloodstream increase threefold. "We can only speculate," says George Chrousos, the endocrinologist who led the NIH study, "but we think it helps women go through the stress of pregnancy, labor, and delivery."

But what happens after birth, when the placenta is gone? Chrousos and his colleagues monitored CRH levels in 17, women from the last trimester to a year after they gave birth. All the women had low levels of CRH - as low as seen in some forms of depression - in the six weeks following birth. The seven women with the lowest levels felt depressed.

Chrousos suspects that CRH levels are temporarily low in new mothers because CRH from the placenta disrupts the feedback system that regulates normal production of the hormone. During pregnancy, when CRH levels are high in the bloodstream, the hypothalamus releases less CRH. After birth, however, when this supplementary source of CRH is gone, it takes a while for the hypothalamus to get the signal that it needs to start making more CRH.

"This finding gives reassurance to people that postpartum depression is a transient phenomenon," says Chrousos. "It also suggests that there is a biological cause."

Maternal Iron Deficiency Anemia Affects Postpartum Emotions and Cognition

John L. Beard, et. al.; J. Nutr. 135: 267–272, 2005.

ABSTRACT The aim of this study was to determine whether iron deficiency anemia (IDA) in mothers alters their maternal cognitive and behavioral performance, the mother-infant interaction, and the infant's development. This article focuses on the relation between IDA and cognition as well as behavioral affect in the young mothers. This prospective, randomized, controlled, intervention trial was conducted in South Africa among 3 groups of mothers: nonanemic controls and anemic mothers receiving either placebo (10 g folate and 25 mg vitamin C) or daily iron (125 mg FeS04, 10 g folate, 25 mg vitamin

C). Mothers of full-term normal birth weight babies were followed from 10 wk to 9 mo postpartum (n 81). Maternal hematologic and iron status, socioeconomic, cognitive, and emotional status, motherinfant interaction, and the development of the infants were assessed at 10 wk and 9 mo postpartum. Behavioral and cognitive variables at baseline did not differ between iron-deficient anemic mothers and nonanemic mothers. However, iron treatment resulted in a 25% improvement (P 0.05) in previously iron-deficient mothers' depression and stress scales as well as in the Raven's Progressive Matrices test. Anemic mothers administered placebo did not improve in behavioral measures. Multivariate analysis showed a strong association between iron status variables (hemoglobin, mean corpuscular volume, and transferrin saturation) and cognitive variables (Digit Symbol) as well as behavioral variables (anxiety, stress, depression). This study demonstrates that there is a strong relation between iron status and depression, stress, and cognitive functioning in poor African mothers during the postpartum period. There are likely ramifications of this poorer "functioning" on mother-child interactions and infant development, but the constraints around this relation will have to be defined in larger studies.

The Impact of Fatigue on the Development of Postpartum Depression

Elizabeth J. Corwin, et.al. (2005); Journal of Obstetric, Gynecologic, & Neonatal Nursing 34 (5) , 577–586

Background: Previous research suggests early postpartum fatigue (PPF) plays a significant role in the development of postpartum depression (PPD). Predicting risk for PPD via early identification of PPF may provide opportunity for intervention.

Objective: To replicate and extend previous studies concerning the impact of PPF on symptoms of PPD and to describe the relationships among PPF, PPD, and other variables using the theory of unpleasant symptoms.

Design: Correlational, longitudinal study.

Setting: Participants' homes.

Participants: Convenience sample of 42 community-dwelling women recruited before 36 weeks of pregnancy.

Main Outcome Measures: PPF, depressive symptoms, and stress measured during prenatal weeks 36 to 38, and on Days 7, 14, and 28 after childbirth. Salivary cortisol was measured as a physiological marker of stress.

Results: Significant correlations were obtained between PPF and symptoms of PPD on Days 7, 14, and 28, with Day 14 PPF levels predicting future development of PPD symptoms in 10 of 11 women. Perceived stress, but not cortisol, was also correlated with symptoms of PPD on Days 7, 14, and 28. Women with a history of depression had elevated depression scores compared to women without, but no variable was as effective at predicting PPD as PPF.

Conclusions: Fatigue by Day 14 postpartum was the most predictive variable for symptoms of PPD on Day 28 in this population.

Iron supplementation for unexplained fatigue in non-anaemic women: double blind randomised placebo controlled trial

F Verdon, et. al.; BMJ 2003;326:1124 (24 May), doi:10.1136/bmj.326.7399.1124

Objective: To determine the subjective response to iron therapy in non-anaemic women with unexplained fatigue.

Design: Double blind randomised placebo controlled trial.

Setting: Academic primary care centre and eight general practices in western Switzerland.

Participants: 144 women aged 18 to 55, assigned to either oral ferrous sulphate (80 mg/day of elemental iron daily; n=75) or placebo (n=69) for four weeks.

Main outcome measures: Level of fatigue, measured by a 10 point visual analogue scale.

Results: 136 (94%) women completed the study. Most had a low serum ferritin concentration; 20 µg/l in 69 (51%) women. Mean age, haemoglobin concentration, serum ferritin concentration, level of fatigue, depression, and anxiety were similar in both groups at baseline. Both groups were also similar for compliance and dropout rates. The level of fatigue after one month decreased by -1.82/6.37 points (29%) in the iron group compared with -0.85/6.46 points (13%) in the placebo group (difference 0.95 points, 95% confidence interval 0.32 to 1.62; P=0.004). Subgroups analysis showed that only women with ferritin concentrations 50 µg/l improved with oral supplementation.

Conclusion: Non-anaemic women with unexplained fatigue may benefit from iron supplementation. The effect may be restricted to women with low or borderline serum ferritin concentrations.

Have we forgotten the significance of postpartum iron deficiency?

Lisa M. Bodnar, et. al.; American Journal of Obstetrics and Gynecology (2005) 193, 36–44

The postpartum period is conventionally thought to be the time of lowest iron deficiency risk because iron status is expected to improve dramatically after delivery. Nonetheless, recent studies have reported a high prevalence of postpartum iron deficiency and anemia among ethnically diverse low-income populations in the United States. In light of the recent emergence of this problem in the medical literature, we discuss updated findings on postpartum iron deficiency, including its prevalence, functional consequences, risk factors, and recommended primary and secondary prevention strategies. The productivity and cognitive gains made possible by improving iron nutriture support intervention. We therefore conclude that postpartum iron deficiency warrants greater attention and higher quality care.