Follow-Up to "Updates in PreNatal Care"

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When I wrote "Updates in PreNatal Care"[i] – it was my intent to share with the profession some specific information about treating pregnant women. I received several emails thanking me for the information I had shared, a few with specific questions, and a few that greatly disagreed with my comments about not performing a side-posture adjustment during pregnancy. I had previously been advised to keep what I wrote short and simple – as too much detail would turn readers off – clearly more detail is needed here.

As I have stated before, what I write is my opinion;[ii] and in this instance that opinion was based upon review of courses I had taken, the materials I had seen, and the OB's I had discussed care with. I believe that what I wrote is reasonable. Let me also add that I have taken the class for hospital chiropractic, I have worked in a hospital, I work now with 2 OB/GYNs – I am proudly a chiropractor, but I work with and understand the mindset of MDs – medical doctors are very careful about anything that could be contraindicated – to ignore any pertinent information is negligence. I did discuss rotational moves with the OBs I work with and they thought it made perfect sense NOT to do a rotational-type adjustment as there is a potential risk. Aren't midwives and OB's the ones who should tell us the risks since this is their entire patient base? If OBs and midwives suggest that there is a potential risk, why isn't that good enough? Why take the chance????

I do believe that pregnant women need chiropractic. Pregnancy is perhaps the most traumatic experience a woman's body will ever undergo[iii] The body begins to change from the moment of conception. Given the progressive postural stresses and ligamentous laxity, pregnancy creates a myriad of distinct aches and pains, the most common of which is lower back pain, especially in the second and third trimester.[iv] Pregnant women are probably some of the best candidates for chiropractic – however the normal battery of techniques is not always appropriate for care. "The obstetrician (lets understand that to mean *physician* in general – including *chiropractor*) must be aware of the normal physiology of pregnancy and the *unique response of the pregnant patient* to stress and trauma."[v]

I did not state that side posture itself causes placental abruption; I said that abdominal trauma and twisting of the abdomen are an increased risk for placental abruption. Since one or both of these can occur during an "aggressive" side posture adjustment I would recommend to err on the side of caution and adjust a different way. To re-quote what I did say: "Using a higher-force technique can cause more problems than relief, so less force is the standard. Also, straight line-of-correction techniques should be used – Thompson, Activator or Nimmo. If you are in the habit of performing a diversified side-posture roll, it is time to learn a new technique. Remember, a pregnant body is chemically and biomechanically different from a nonpregnant body, and the usual battery of techniques is not always appropriate." I am aware that Gonstead technique uses a straight line of correction when performing a side posture adjustment – but cautions about very careful patient positioning, as anything less would lead to insufficient correction or a negative response from the patient.[vi] Dr. Loretta Friedman, a chiropractor who practices DNFT said it like this: "DNFT achieves the goals of traditional chiropractic--to relieve pain and discomfort created by structural misalignments without all the rack-em, stack-em and cracking force on the spine."[vii] The patient information brochure on pregnancy from Back Talk Systems notes: "Modifications to the table or adjusting technique are made during each stage of pregnancy."[viii] Clearly, I am not alone in my belief.

Of course, I know that not all doctors adjust aggressively. When other chiropractors ask me for advice, and I have no way of determining their individual skills or level of aggressiveness through e-mail or phone conversations. Again, I prefer to err on the side of caution and recommend against side posture adjusting. The caution raised is not a question of *force*, it is a question of *rotation* of the pelvis during pregnancy. As I stated in my previous article, even prenatal exercise

and yoga classes are now cautioning against rotational-type motions as there is a risk of abruption.[ix] "There are obvious concerns for uterine injuries in the pregnant woman. Particularly worrisome is the specter of placental abruption, which complicates 1 to 6 percent of "minor" injuries and up to 50 percent of major injuries. It is hypothesized that the abruption is likely caused by deformation of the elastic myometrium around the relatively inelastic placenta."[x]

In the interest of covering bases, I will note that the condition uterine torsion occurs mainly in the third trimester.[xi] Uterine torsion is defined as a rotation of more than 45 degrees around the long axis of the uterus.[xii] Uterine torsion may be facilitated by many factors – including scar tissue or trauma. Other clinical predisposing factors include the mothers' age, race, lifestyle, previous health and pregnancy history, and co-morbid health conditions. From a medical perspective, the non-specific clinical course and rarity of this condition makes the [preoperative] diagnosis difficult and raises critical management considerations.[xiii]

Having said all that, allow me to present some other data that which I believe supports my conclusion:

> --Circulatory disturbances are considered one of the most common placental lesions.[xiv]
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> --As pregnancy progresses, the placenta begins to "age" – there is a dense yellowish-white fibrous ring representing a zone of degeneration and necrosis, (termed a *marginal infarct*).[xv]
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> --As pregnancy advances, the placental membrane becomes progressively thinner, with the capillaries lying closer to the surface. The welfare of the fetus depend more on the adequate bathing of the chorionic villi by maternal blood than any other factor. Acute reductions of uteroplacental circulation result in fetal hypoxia.[xvi]
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> --Uterine torsion signs, when present, are not specifics. Pain, nausea and vomiting may present without any sign of shock.[xvii] The most common symptom is abdominal pain however this may vary from non-specific mild abdominal discomfort through to symptoms of an acute abdomen with shock, thus making diagnosis difficult.[xviii] One of the early signs of abruption is low back pain. Since many women come to a chiropractor during pregnancy with low back pain, it is my personal opinion that this alone may increase the doctor's chances of encountering a case of early abruption, even thought this is rather rare. So again, I personally omit a side posture adjustment altogether, it's just my policy.

The concept of a secondary abruption must also be considered. Many patients see a chiropractor after a trauma – such as a motor vehicle collision. It has been referenced that MVA's are a source of trauma to the gravid uterus.[xix] However, not all abruptions are immediate or complete.[xx] For sake of argument, suppose a pregnant patient presents following an MVA - with an occult, clinically undetected abruption – and the chiropractor performs his treatment. If the patient starts to hemorrhage later that day – where will the blame be placed??? The answer should be as obvious as it is sobering. The medical care provided to a pregnant trauma patient by a trauma specialist should be supplemented by a careful evaluation of the pregnant woman by an obstetrician.[xxi] Motor vehicle accidents account for two-thirds of all trauma events during pregnancy, and both blunt abdominal trauma and trauma to the skull are associated with high mortality of the fetus. The severity of the trauma is an important prognostic factor for survival of both mother and fetus. Fetal injury can be caused even by apparently mild forms of maternal trauma.[xxii] As I said in my original article, a pregnant body is different, both chemically and biomechanically, from a nonpregnant body. The various anatomic and physiologic changes of pregnancy may alter the type of injury experienced by pregnant women. These changes may also alter the manifestations of given injuries and the treatment required to reestablish maternal-fetal hemostasis.[xxiii]

Now, with all of that being said, it should be logical that a side-posture roll could be potentially dangerous - so why take the chance? If a person presented in my office with a positive George's test, I wouldn't do a rotary break adjustment on his cervical spine. Does that mean if I did he would have a stroke? Of course, not, but the chances are greater, the risk is there, so choose another way to treat. That's all I ever said about side posture during pregnancy. (by the way – there is also dispute over the use of George's test[xxiv]) Choose another way and err on the side of caution. As I did state in my article – I, too had performed a side posture adjustment for many years – without incident – prior to coming across the information I shared. However, there is a potential for risk to the mother and child with rotational motion of the lumbopelvic spine, this is the message I was trying to convey.[xxv]

If I offended you with my original article, please accept my humble apology. I had no intention of insulting anyone's personal technique or skill. I choose not to use side posture - I personally, feel safer not doing it. I believe there is sufficient information to support this claim. I imagine if I told people it was OK to do side posture and something happened I would be held responsible for that, too. So, to err on the side of caution, I say to people who ask, "I prefer to adjust pregnant women by means other than side posture".

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[i] http://www.chiroweb.com/archives/25/07/19.html
[ii] http://www.chiroweb.com/archives/24/20/09.html
[iii] http://www.gonsteadclinicpc.com/Page.html#Q5
[iv] http://www.gonsteadclinicpc.com/Page.html#Q5
[v] Trauma and Pregnancy. *Clinical Obstetetrics & Gynecology*. 1984 Mar;27(1):32-8.
[vi] Hervst, RW. *Gonstead Chiropractic Science & Art*. Schi-Chi Publications.
[vii] http://www.gonsteadclinicpc.com/Page.html#Q5
[viii] *Pregnancy and the Chiropractic Lifestyle*. Back Talk Systems. 1995.
[ix] http://www.ashtanga.com/html/pregnancy.html
[x] Cunningham, et. al. *Williams Obstetrics*. 20th ed. Appleton and Lange 1997.
[xi] Third trimester uterine torsion: case report. *Journal of Obstetrics & Gynaecology Canada*. 2006 Jun;28(6):531-5.
[xii] Uterine Torsion in Pregnancy: A Review: *The Internet Journal of Gynecology and Obstetrics*. 2006; Volume 6, Number 1.
[xiii] Uterine Torsion in Pregnancy: A Review: *The Internet Journal of Gynecology and Obstetrics*. 2006; Volume 6, Number 1.
[xiv] Cunningham, et. al. *Williams Obstetrics*. 20th ed. Appleton and Lange 1997.
[xv] Cunningham, et. al. *Williams Obstetrics*. 20th ed. Appleton and Lange 1997.
[xvi] Moore, K.L. *Before We Are Born*. 3rd. ed. WB Saunders Co. 1989.
[xvii] Uterine torsion with maternal death: our experience and literature review. *Clinical Exp Obstetetrics & Gynecology*. 2005;32(4):245-6.
[xviii] Uterine Torsion in Pregnancy: A Review: *The Internet Journal of Gynecology and Obstetrics*. 2006; Volume 6, Number 1.
[xix] Torsion of a gravid uterus associated with maternal trauma. A case report. *Journal of Reproductive Medicine*. 2002 Aug;47(8):683-5.
[xx] Gabbe, S.G. *Obstetrics – Normal and Problem Pregnancies*. Churchill Livingstone. 1986.
[xxi] Gabbe, S.G. *Obstetrics – Normal and Problem Pregnancies*. Churchill Livingstone. 1986.
[xxii] Trauma and Pregnancy. *Archives of Gynecology & Obstetrics*. 1993;253 Suppl:S4-14.
[xxiii] Abdominal trauma during pregnancy. *Clinical Perinatology*. 1983 Jun;10(2):423-38.
[xxiv] http://www.chiroweb.com/archives/24/18/19.html
[xxv] http://www.chiroweb.com/archives/25/07/19.html