

Big Difference Between Premarin/Provera and Bio-identical Estrogen and Progesterone

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There was a new study that appeared in the Journal of the American Medical Association yesterday. I am sure many of you saw it as reported on the Today Show and many other news outlets. This news I'm sure alarmed many of you, so I wanted to take this opportunity to explain the study and assure you this study does not include all hormones, but refers to the combination of Premarin and Provera.

The study stated that there is an increased in risk of death from breast cancer when you are taking the combination of estrogen and progestin. In this case, the drugs that were used were Premarin and Provera. Premarin is known as conjugated equine estrogens and is horse estrogen which had some similarities to human estrogen but is not the same. Provera is a progestin known as medroxyprogesterone acetate and is very different in function from natural progesterone.

The study is concerning only if you are taking the combination of Premarin and Provera otherwise known as Prempro. This is not new data. The original Women's Health Initiative trial was stopped in 2002 because they noted this increased risk of breast cancer with women taking the combination. The new data shows that the women taking a combination of Premarin and Provera had an increased risk of death from their breast cancer as well. In reality, this increased risk translates into 2.6 deaths versus 1.3 deaths from breast cancer each year for every 10,000 women taking Premarin and Provera or about 1.3 additional deaths per year. So, the average risk for each individual woman remains very small; approximately 1.3 in 10,000 for those on the combination.

The main issue I have with the way the study is being reported right now is that the data is being extrapolated to include all hormone replacement therapy. It is not true that bioidentical estradiol acts the same in your body as conjugated equine estrogens. It is also not true that natural bioidentical progesterone acts the same way in your body as medroxyprogesterone acetate.

Bioidentical hormones have the exact same structure in your body and hormones that your body would naturally make. This is very important because the structure of all the different chemicals and molecules in your body is critical to how those molecules react with the receptors on your cells. The hormones have to connect with the receptor on the cell in order for the cell to have the appropriate action the hormone commands.

Premarin is a combination of 17 alpha-dihydroequelin, 17 alpha-estradiol, and 17 beta-dihydroequilin which is very different than your body's natural estradiol. Therefore, the hormones in Premarin are going to have very different structures than natural estradiol. Because of that different structure, they are going to attach differently to the receptors on the cells of tissues such as breast, endometrium and brain. More importantly, in the case of Premarin, it is going to metabolize differently.

In the case of bioidentical estradiol, the molecules are eliminated from your body within a few hours. Conversely, the metabolites from Premarin have been shown to stay in your body for up to 13 weeks! This is because your body's enzymes are designed to metabolize your own estrogen not equilin. It is also known that Premarin preferentially metabolizes into a more carcinogenic metabolite, 4-hydroxy estrone. Interestingly, even though Premarin metabolized to a more carcinogenic metabolite if you

look at the Premarin-only arm of the Women's Health Initiative from 2002, there is neither an increase or decrease in mortality between Premarin-only and placebo. Even in this study, it states that women with a hysterectomy who are only on Premarin do not have an increased risk of breast cancer. That being said, the obvious problem with the drugs in the Women's Health Initiative is Provera or medroxyprogesterone acetate.

Medroxyprogesterone acetate is known as a progestin and is very different from natural progesterone. Medroxyprogesterone acetate is known to increase the risk of clotting and it increases the risk of abnormal cell divisions. Bioidentical progesterone balances the effects of estrogen in the breast tissue and stabilizes the breast cells. Other effects of natural progesterone include reduction in anxiety and irritability, natural calming effect, help with sleep, lower cholesterol and help to balance fluids in cells which lead to reduced water retention.

On the other hand, progestins such as Provera, cause an increase in appetite, weight gain, fluid retention, irritability, headache, bloating, breast tenderness, low libido and insomnia. On top of that, the use of progestins such as Provera interferes with your body's own production of natural progesterone so you have even fewer of its good effects.

There are numerous studies that demonstrate an increased risk of breast cancer with medroxyprogesterone acetate in relation to bioidentical natural progesterone or placebo. A study of more than 54,000 postmenopausal women in France compared risk of breast cancer among women using HRT such as Premarin and Provera or bioidentical hormone therapy for nearly three years. Risk for breast cancer increased by up to 70% among those women taking progestins, such as Provera. Among those taking bioidentical progesterone, the risk actually decreased by 10%. A longer term French study tracked more than 80,000 postmenopausal women for just over 8 years. It compared breast cancer risk among women using estrogen and bioidentical progesterone versus estrogen and progestins. Risk increased up to 90% among those using progestins such as Provera but did not increase among women using bioidentical progesterone.

At the end of the day, the decision to use hormone replacement therapy is one to be made between the patient and her physician. However, I believe it is very important to be able to interpret the data correctly. You cannot extrapolate what happens in the body using Premarin and Provera to discuss what happens in the body with its own natural hormones. Because of the deleterious effects of Premarin and Provera I stopped prescribing it in 2002. I have been prescribing bioidentical estradiol and progesterone since that time and am very confident that my patients do not have an increased risk of breast cancer if the hormones remained balanced. Your natural hormones, when properly balanced, allow the body to function at its optimal level. They also allow for the reduction in symptoms of hormone imbalance such as hot flashes, night sweats, difficulty sleeping, mood changes, weight gain, low libido, bloating and a host of other significant symptoms. For the majority of women who have not been on Premarin and Provera, this study does not have any meaning.