intercourse, there is no risk of thrombosis, hypertension is not a contraindication, do not affect libido, are allowed for use during preparation to surgical manipulations, reduce pain during menstruation. Also there are some drawbacks: accurate reception mode (must be used regularly in the same time), efficiency in comparison with the combined oral contraceptives is lower, there may be increase or loss in weight, lack of protection from sexually transmitted diseases and AIDS, possible reduction in contraceptive effect while taking anticonvulsants or anti-TB drugs that cause restriction of the drug in women with epilepsy, seizures, tuberculosis. Side effects: short-term changes of the menstrual cycle, the development of ovarian cysts, exacerbation of chronic thrush course of the disease, the nausea and weakness at diabetes which aren't demanding cancellation of a preparation, sensitivity to ultraviolet rays with formation of pigmentary spots.

Conclusions. Thus, we can say that the mini-pill are effective and safe drugs, the use of which can effectively provide contraception. The regular mode of reception of mini-pill has several advantages compared to the traditional mode. They consist in: reduce the number of menstruation, which corresponds to the wishes of the majority of women, additional therapeutic effect on premenstrual syndrome, dysmenorrhea, polycystic ovary syndrome, uterine fibroids, endometriosis.

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HOW THE BRAIN AND HEART INTERFACE WITH OUR EMOTIONS

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Introduction. In ancient Egypt it was believed that the heart was the organ responsible for feelings and emotion because it was the one organ that pumped blood throughout the body and that had any visible alterations in its beating when we changed our feeling: if we were happier, or angrier or sadder, or sleepier, our heart rate would be different. The heart physically communicates with the brain and the rest of the body. The communication pathways, which originate in the heart, travel through the emotional memory section of the brain and go all the way to the top of the brain responsible for thinking and reasoning.

Today we already know that it is not the heart that is responsible for feelings or emotion, but yes the brain. The heart does no longer have anything to do with this since it does not have a cerebral cortex. Neuroscientists have been studying the brain and have realized that it is the limbic system in our brains that govern our emotions. It consists of several parts of the brain working together; the amygdala, the hippocampus, the basal ganglion, and the thalamus, as well as other parts.

However, our emotions determine the state of our hearts. Now consider lying to yourself. You try convince yourself in your brain that the lie is the truth, but your still beats. Your heart continues to show feelings even when you have already convinced yourself the lie is the truth. It is hard or even impossible for the other person to tell until he/she checks the change of pace by hand or through 'lie detectors'. Lie detectors in reality are to check the change of pace in your veins or your heart. Even the iPhones and iPod touches have then now, as they ask you to place your finger on it for a while. During that 'while', it in reality is checking your heartbeat through your veins in your fingertip. If it continues at a normal

pace, it will guess you have told the truth. If it notices changes, it will point that you have lied.

The heart is also a hormonal organ. Among other hormones, it produces one which is labeled by some as the "balancing hormone," because it contributes to the balancing of other hormones. This same hormone can facilitate the reduction or increase of stress hormones. The heart may also be responsible for the production of "Oxytocin," fondly referred to as the "love hormone." The love hormone plays an important part in our emotional and social development. For example, Oxytocin is in action when a mother feeds and tends her child. Compassion, caring, love, appreciation, gratitude, forgiveness and other behaviors may have a lot to do with how well the heart is functioning at the physical, emotional, mental and spiritual levels.

Conclusions. What causes some cases of heart attacks? Why do we feel so hurt in our heart when our emotions are toyed with? Why does our heart beat faster when we're afraid or excited? These are all emotional stimuli received by the brain which have negative or positive effect on the heart. So to have a healthier heart, we should think healthy, eat/drink healthy and emotionally and mentally exercise. The brain therefore is an emotion-creating organ and the heart through the neurons shared between it and the brain, is the emotion-responding organ.

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IMETELSTAT - NEW THERAPEUTIC REMEDY FOR ADVANCED NON-SMALL-CELL LUNG CANCER

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Introduction. Targeted cancer therapies are drugs or other substances that interfere with specific molecules involved in cancer cell growth and survival. Telomerase is a therapeutic target because it is specific to cancer and critical for cancer cell immortality.

Aim. Geron Corporation carried out study, in which the efficacy of switch maintenance therapy with imetelstat in advanced NSCLC patients was evaluated and explored the potential use of TL as a surrogate (predictive biomarker) of imetelstat activity.

Imetelstat is a covalently lipidated 13-mer thiophosphoramidate oligonucleotide that acts as a potent specific inhibitor of telomerase. It binds with high affinity and acts as a competitive inhibitor of human telomerase enzymatic activity. Preclinical studies with imetelstat have shown its ability to inhibit telomerase in tumor cells and to compromise cancer cell viability in vitro. Imetelstat has broad tumor growth inhibition activity in multiple xenograft models, including metastatic non-small-cell lung cancer (NSCLC) and breast cancer. Eligible patients had pathologically confirmed stage IV or recurrent locally advanced NSCLC; had experienced no progression after completing first-line platinum-doublet chemotherapy (four cycles).

Materials and methods. 114 patients were randomized for this research: 52 patients received imetelstat alone, 24 received imatelstat plus bevacizumab, 12 received bevacizumab only, and 26 patients received neither. Imetelstat was generally well tolerated, with 32% and 26% of patients requiring dose reductions and delays, respectively. neutropenic fever and bleeding episodes (epistaxis, hemoptysis, pulmonary hemorrhage and intracranial hemorrhage) were infrequent (<2% each). The most frequent treatment-related non-hematologic adverse events involved the gastrointestinal (57.9%), musculoskeletal (45.6%),