Space Weather & Geomagnetic Storms - Headaches, Changes in Blood Pressure

4/12/2014

'S0 News April 12, 2014: Quakes, Volcano, Cyclone, Magnetic Storm' Video by Suspicious0bservers.

(2:02) Anyway, far further above our heads our magnetic shield is in a bit of disarray: without any interplanetary shocks, the Solar Wind electromagnetics tipped South and that's like our shield just having one of those days where everything goes wrong, and, you've got a migraine.

(2:15) Even without the shocks, South-pointing Interplanetary Magnetic Fields leave Earth vulnerable to Solar Wind and we've currently got a Geomagnetic Storm...

These rhythms should be somewhat familiar if you've read the most recent Electric Healing blog post, which borrowed a quote from the exact same paper. This quote is one that bears repeating:

"The brain is a massive source of extremely-low-frequency (ELF) signals that get transmitted throughout the body via the nervous system, which is sensitive to magnetic fields...

Raw EEG frequency bands include gamma (higher than 30 Hz), beta- (14–30 Hz), alpha- (7–13 Hz), theta- (4–7 Hz) and delta- (less than 4 Hz) waves. Their ranges overlap along the frequency spectrum by 0.5 Hz or more. These frequencies are linked to behavior, subjective feeling states, physiological correlates, etc." (Allahverdiyeva & Babayev 2007).

"During days with severe geomagnetic storms, the bioelectric activity of the human brain was characterized by a reduction of frequencies of dominating rhythm, by amplification (strengthening) of expressiveness of slow-wave component (mainly a theta-rhythm) and by increase in amplitude of activity..."

"The flashes of pointed and sharp alpha- and theta- waves, prevalent in the right cerebral hemisphere, were registered during our experiments in the days with severe geomagnetic storms (Fig. 2, below)" (Allahverdiyeva & Babayev 2007).

Ben (S0) touched on an interesting topic in today's news: the correlation between headaches and Geomagnetic Disturbance. I have seen several people talking about having a headache, or ringing in the ears, which just so happened to go hand in-hand with this morning's Geomagnetic Storm. (Allahverdiyeva & Babayev 2007).

Ben (S0) touched on an interesting topic in today's news: the correlation between headaches and Geomagnetic Disturbance. I have seen several people talking about having a headache, or ringing in the ears, which just so happened to go hand in-hand with this morning's Geomagnetic Storm.

These aspects of human health, along with many others, are explored in more detail in the paper, 'Effects of geomagnetic activity variations on the physiological and psychological state of functionally healthy humans.'

So, let's examine a few of the more relevant take-aways from the paper's section, 'Functional state of the human brain in days with severe geomagnetic disturbances':

- There were an indisposition, weakness and presence of indistinct localized headaches revealed during the days with severe Geomagnetic Storms for the majority of the experiment participants.

- Geomagnetic Disturbances affect mainly the emotional and vegetative sphere of human beings.

- Changes in Geomagnetic conditions mostly affect the activity of regulating systems...and for adaptation to changes of a physical environment (Allahverdiyeva & Babayev 2007).

According to Dr. Neil Cherry, "The first five Schumann Resonances (SR) coincide with the frequency range of the first four EEG bands...Hence resonant absorption and reaction is biophysically plausible...SR consists of a spectrum of ULF/ELF resonant peaks with a fundamental frequency of about 7.8 Hz and broad resonant peaks typically at 14, 20, 26, 33, 39, 45 and 51 Hz (Cherry 2001)."

Geomagnetic Disturbances result in variations in the Schumann Resonance signal, which affects melatonin production and impacts human health. The conclusions of Allahverdiyeva and Babayev's study shine a light on the possible influence of Geomagnetic Storms on the human brain's functional state, which the authors have sumarized:

And according to Hainsworth (1983), "Geomagnetic variations of solar origin correlate with enhanced anxiety, sleep disturbances, altered moods, and greater incidences of psychiatric admissions." The paper's previous research into the subject goes on to suggest that:

"there is an increasing of platelets aggregation and blood coagulation (Pikin, et al. 1998). Other authors compared geomagnetic and medical data rows and found that at least 75% of magnetic storms caused increase in hospitalisation of patients in connection with suicides, mental disorders, myocardial infarction, defects of cerebrum vessels and arterial and venous disease on 30-80% at average" (Dimitrova & Stoilova 2003).

Earlier in the paper, the authors Allahverdiyeva and Babayev noted that their results were in conformity with the conclusions from the paper, 'Planetary geomagnetic indices, human physiology and subjective complaints,' which is worth taking the time to look into.

The paper investigates the "influence of everyday changes in Geomagnetic Activity (GMA) on the systolic and diastolic blood pressure (BP), pulse-rate, behaviour reactions and subjective complaints related to headaches, vertigo, sleep disturbances, heart stitches, heart thumping, etc."

In the middle of the last century A. Chizhevsky confirmed, for the first time, that changes in solar activity affect human health. Since then, "many authors have found impact of the solar activity variations and related to them geomagnetic activity (GMA) changes on the cariovascular system, circulatory system, nervous system and respiratory system" (Dimitrova & Stoilova 2003).

Previous research has also shown that during increased Geomagnetic Activity:

"the individual state is a very important factor, which defines the reaction extended to the mentioned disturbances…there is a 'magnetic sense' in human beings by which geomagnetic variations might influence human health and behaviour" (Dimitrova & Stoilova 2003).

In 1963 Becker suggested that "it was possible that the electrical differences between central nervous system and the peripheral nerves may serve as a sensor for accepting geomagnetic waves."

The authors', Dimitrova and Stoilova, investigation into the trends in changes of systolic and diastolic Blood Pressure (BP) upon the influence of Geomagnetic Activity revealed that:

"Systolic BP expressing heart contractions correlates more closely to emotional status. Diastolic BP is defined by the vessels state and correlates more closely to the physiological status. We suppose that because of this reason we obtained more distinguished changes for Diastolic BP" (Dimitrova & Stoilova 2003).

An interesting note on Geomagnetic Storm progression and one final thought:

"usually geomagnetic storms accompanied with sudden storm commencement (SSC) abate after 2-3 days but magneto-ionosphere storms and disturbances develop in the Earth environment. These ionosphere disturbances usually culminate on the second day after geomagnetic storms. In rare cases for our latitudes they can occur on the third day. That so called 'post-storm effect' (PSE) in the ionosphere (Velinov et al., 1970; Velinov et al., 1974). PSE is a result from precipitation of the trapped particles from the radiation belts in the ionosphere on the second day after SSC.

The physiological parameters examined and statistical analyses that we performed confirm the presence of changes and there are no doubts that the level of GMA effect the human physiological reactions, but the biological input of this influence require further clarification" (Dimitrova & Stoilova 2003).

Simply being aware of these events puts the observer at an advantage. Remaining calm and doing something as simple as taking '10 Mindful Minutes' for ourselves is important in times of Geomagnetic Unrest.

Familiarizing ourselves with the present moment is one of the goals of meditation; is there a better way to ride out a Geomagnetic Storm?

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