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# Headaches Secondary to Macromastia: Does Brain Temperature Changes Explain the Physiology of Breast Cleavage?

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### My opinion

A new concept was put forward by Ducic et al (1) when based on their anecdotal experience and retrospective review, they documented that macromastia was contributing to the headaches in the patients and reduction mammoplasty was shown to relieve the headaches significantly in these patients. Per Ducic et al, the underlying mechanisms for coexistent macromastia and headaches are complex and may be related to the body mass index, metabolic syndromes of obesity, increasing age of the patients and chronic occipital neuralgia secondary to the weight of the breasts. However, I want to elicit a different perspective to the mechanism of the chronic headaches secondary to the marcomastia. When Einer-Jensen and Hunter (2) brought forward the simile to the counter-current heat exchange mechanism that keeps the brains, testes and ovaries cooler, it has become my understanding that the reason for keeping these organs cooler as compared to other organs may be related to their higher cellular metabolic activities with constant vulnerability to the fragility of the nerve cells as well as the reproductive cells wherein each fragile vulnerable cell lost may interfere with either the intact higher nerve center functioning or the intact transfer of the genetic code through the generations. Herein, the importance of brain temperature was recently re-hypothesized by me (3) to possibly re-explore the multitude of patho-physiological phenomena that were un-investigated in humans because of the lack of the non-invasive brain temperature monitoring until now when Marc Abreu researched and presented the Brain Temperature Tunnel™ (4) to non-invasively and continuously monitor the brain temperature. Based on this background discussion, it is my understanding that the brain temperature changes elicited by the insulating cushion of the large size breasts over the chest wall may be interfering with the adequate initiation of cooler blood flow in the arch of aorta and the origins of the carotid arteries before these arteries travel through the exposed areas of the non-hairy necks. The physiological concerns may be even worse for the deeper seated vertebral arteries and the

subsequently supplied posterior intracranial structures. The cushioning insulation by the dense breast tissue at the origin of the cerebral blood flow may be worsening in amounts secondary to the essential supporting undergarments for maintaining good natural posture by the patients with macromastia. This concept may be worth exploring to better understand the headaches in the females with or without macromastia as the brain temperature fluctuations may be the underlying concern for the differential maintenance of the breast cleavage across the gender with their differential density of the breast tissues; and the breast cleavage may have been mistaken as a sexual phenomenon until now when it actually may have overriding physiological in-situ mechanisms to overcome the heat insulation of the originating cerebral blood flow as accrued by the dense breasts.

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- 4. http://www.braintunnelgenix.com/btt\_discovery.html Last accessed on October 27, 2011.

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