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Freely Available Online

JOURNAL OF CERVICAL CANCER
ISSN NO: 2997-2108

Editorial

DOI : 10.14302/issn.2997-2108.jcc-15-856

Gene-Eden-VIR: A Potential Natural Treatment for Cervical Cancer

Hanan Polansky[1]*, Will Blesch[1]

1. The Center for the Biology of Chronic Disease (CBCD), Rochester, USA.

In 2013, we reported that Gene-Eden-VIR decreases symptoms associated with viral infections, specifically, with the human papillomavirus (HPV). Based on this and other reports, we would like to suggest that the medical community consider Gene-Eden-VIR as a potential treatment for cervical cancer.

Our study specifically measured the effect of Gene-Eden-VIR on "genital warts, low and high grade cervical dysplasia, (and) abnormal Pap smear results" …" (See Pharmacology & Pharmacy, published August 2013) (1) The results showed that, "Seventy three percent (30/41) of the individuals treated with Gene-Eden-VIR reported a decrease in these symptoms (and symptoms of other viruses). Specifically, they reported a decrease in the severity of their symptoms ($p = 0.006$, $n = 45$), a decrease in the duration of their symptoms ($p = 0.009$, $n = 34$), and a decrease in the frequency of their symptoms ($p < 0.001$, $n = 31$). (1)

Gene-Eden-VIR's formula contains five natural ingredients: Selenium, Camellia Sinensis Extract, Quercetin, Cinnamomum Extract, and Licorice Extract. It is interesting that three out of the five ingredients were proven to be effective against the HPV and abnormal growths. These three include Selenium, Camellia Sinensis, and Quercetin.

HPV is known for its ability to cause cervical cancer. Selenium has been shown in multiple studies to have antigrowth properties. Moreover, studies observed that cells lacking in selenium are more susceptible to HPV infection and cancer. For example, Zheng S, *et al*. wrote that "The occurrence of carcinoma of the

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Corresponding author:

Hanan Polansky, The Center for the Biology of Chronic Disease (CBCD), Rochester, USA. Phone: 585-250-9999, hpolansky@cbcd.net

Keywords: HPV, human papillomavirus, cervical cancer, cancer, growth inhibitory, anti-growth, catechins, selenium, quercetin, Gene-Eden-VIR.

Received: Nov 21, 2015 **Accepted:** Feb 17, 2016 **Published:** Mar 17, 2016

uterine cervix is closely connected with infection of HPV 16, 18, 35 and HSV2, high level of cellular factors IL-2R, TNF and low level of element Se (selenium)." (2) Zhang S, *et al*. also wrote in another study that "Supplemental dietary selenium is associated with reduced incidence of many cancers. The antitumor function of selenium is thought to be mediated through selenium-binding protein 1 (SELENBP1) … selenium treatment resulted in reduced cell proliferation in endogenous SELENBP1 high cells…. (3) Moreover, Feng Y, *et al*. showed that "the screening of *in-vitro* anticancer activities demonstrated that SeNPs@AAs (AAs modified selenium nanoparticles) exhibited differential growth inhibitory effects on various human cancer cell lines." (4)

In regard to green tea, Tyring wrote that "Numerous published studies have established the health benefits of tea consumption. These health benefits-most specifically those of green tea-have been touted for centuries; however, the bulk of the scientific investigations of green tea have only emerged within the past 30 years or so … catechins represent 60 to 80 percent of the total polyphenols in green tea … green tea is mainly produced from the plant Camellia sinensis." (5) Importantly, another study by Tyring found that "sinecatechins in human cervical carcinoma cell lines infected with human papillomavirus … inhibited cell growth in all four tumor cell lines by 50 percent (GI (50)) at concentrations ranging from 160 to 360μM." (6) Additionally, "Extracellular signal-regulated kinases 1/2 (involved in human papillomavirus tumor cell growth) were also inhibited by sinecatechins at high concentrations...." (5)

Concerning quercetin's growth inhibitory effects and anti-HPV properties, Chung-Hsiang Yuan, *et al.,* wrote that "High-risk strains of human papillomaviruses (HPV) cause nearly all cases of cervical cancer as well as a growing number of head and neck cancers. The oncogenicity of these viruses can be attributed to the activities of their two primary oncoproteins, E6 and E7. The E6 protein has among its functions the ability to prevent apoptosis of infected cells through its binding to FADD and caspase 8 ... quercetin inhibited GST-E6 and His-caspase 8 binding in a specific manner." (7) Yang J, et al. wrote that "Quercetin, curcumin and Glaucocalyxin A could inhibit cell proliferation, probably through making Hela cell (of cervical cancer) be in stagnation and inducing its apoptosis." (8) Zhang WT, et al. wrote in another study that "HPA was significantly expressed in both cervical cancer cell lines (HeLa and Caski), and it exists both nucleus and cytoplasm. The real-time PCR shows as follows: as the quercetin concentration increased (20, 40 and 80 μmol/L), the mRNA expression level of HPA decreased ($P < 0.01$)." (9)

In addition, we tested the effect of Gene-Eden-VIR in a pancreatic cancer patient. The results showed that "the addition of Gene-Eden to chemotherapy may have participated in shrinking the tumor and in strengthening the immune system in a case with poor prognosis." (10)

We therefore believe that Gene-Eden-VIR should be considered by medical professionals as an alternative treatment for cervical cancer caused by the HPV.

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