



Water or Wipe: Implications for Human Papilloma Virus Associated Cancers?

Peer review status:

No

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Article ID: WMC005266

Article Type: My opinion

Submitted on: 31-Mar-2017, 10:13:39 PM GMT **Published on:** 03-Apr-2017, 08:46:01 AM GMT

Article URL: http://www.webmedcentral.com/article_view/5266

Subject Categories: CANCER

Keywords: WATER; HUMAN PAPILLOMA VIRUS; CANCER; INDIA; JAPAN; SPAIN; SINGAPORE; ISRAEL; ITALY

How to cite the article: Gupta D. Water or Wipe: Implications for Human Papilloma Virus Associated Cancers?. WebmedCentral CANCER 2017;8(4):WMC005266

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Source(s) of Funding:

NONE

Competing Interests:

NONE

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Abstract

It's commendable statistic that was deciphered by Islami et al (2016). It is interesting question raised by them whether the trends of receptive anal intercourse may explain the trends towards anal cancer incidence among various countries. However, they could have also reflected in their discussions whether plain water vs. dry wipe role in anal hygiene could potentially contribute to the trends in anal cancer because it would be worth a while to investigate whether post-defecation water use with associated anogenital hygiene variability in itself can act as an independent shield in our battle against anogenital cancer.

My Opinion

It's commendable statistic that was deciphered by Islami et al (2016) [1]. It is interesting question raised by them whether the trends of receptive anal intercourse may explain the trends towards anal cancer incidence among various countries. However, they could have also reflected in their discussions whether plain water vs. dry wipe [2-6] role in anal hygiene could potentially contribute to the trends in anal cancer. Henceforth, I am raising those questions that may need to be pondered into by the scientific community.

Human papilloma virus (HPV) is known to be a common causative agent for anal cancer [7]. Among the all HPV types, HPV-16 is the commonest type as underlying HPV-related causation for genital cancer (cervical and penile cancer) and hence correspondingly to anal cancer (assuming the receptive anal intercourse being the vehicle). Contrastingly, in spite of being related to skin warts and skin cancer, HPV-47 has NOT been associated with anal cancer despite being most abundantly identified in the human feces [8-9]. To minimize exposures sustained during sexual contact, post-coital hygiene [10] includes immediate cleansing with water [11] primarily; therefore, correspondingly post-defecation hygiene may be rated as better achieved with water as compared to paper. However, when HPV has been shown to be resistant to common

disinfectants [12], there can be a question about what role (if any) water cleansing can play. Hereafter comes the question whether the persistent fecal matter (depending on the post-defecation practices achieving variable adequacy of anogenital hygiene) contributes to persistent survivability [13] of anogenital HPV (HPV-16 in genital secretions and/or HPV-47 in fecal excretions; and subsequent potential risk for non-sexual HPV transmission through fomites [14] despite the absence of documented cases for the same) that may be acting as a potential risk factor for deciphered relative differences in the anal cancer incidence across the world.

From Islami et al (2016) [1] data, it is interesting to review the countries' list wherein little change in anal cancer incidence happened as compared to the increasing incidence in other countries. India and Japan has been known to consistently use water for post-defecation hygiene irrespective of the poor sanitation conditions in India [15] being different than the sophisticated Japanese toilets being often equipped with vertical jet based bidets [16]. Similarly, the Spanish toilets are known to be equipped with bidets; the Singaporean population has cleanliness ingrained into their psyche-practices as per their city-state laws (and hefty penalties) [17]; and despite their miraculous needs for water conservation [18], the drought-ridden Israelites must have comprehensive resolve towards personal hygiene beside the almost-universal practice of male circumcision, that is now known to have HPV-protective potential [19]. Alternatively, the increasing incidence of anal cancer among the bidet-loving Italian population [20] may itself weaken the argument about preferring water (over wipe) for anogenital hygiene (with potentially decreased risk of anal cancer). Overall, it can be true that, irrespective of water-or-wipe, the increasing incidence among the reviewed populations may be primarily related to potentially increasing trends towards receptive anal intercourse; however, it may be interesting to ponder whether, in the backdrop of variable post-defecation hygiene with wipe (as compared to water), the anogenital hygiene status in itself can aggravate the receptive anal intercourse practicing populations' risk towards anal cancer.

In summary, it would be worth a while to investigate if post-defecation water use itself can act as an

independent shield in our battle against cancer (in this particular case against the anogenital cancer).

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