

Trend of Male Circumcision and HIV Prevention of Heterosexually Acquired HIV in A Special Population: South Korea

Kim SH¹ and Chang J^{2*}

¹Harvard School of Public Health, 677 Huntington Avenue, Boston, MA 02115, USA

²Samford University, McWhorter School of Pharmacy, 800 Lakeshore Drive, Birmingham, AL 35229, USA

According to the 2011 data from World Health Organization, South Korea has 0.1% adult (Age 15-64) prevalence of HIV/AIDS [1]. This translates into about 9,500 cases of HIV/AIDS with annual death of 500 people per year [2]. Unlike other sub-Saharan African countries (i.e. Zimbabwe has 14.9% adult prevalence [2]); South Korea is considered a nation where HIV/AIDS prevalence is low. This low prevalence in the general population is contrasted with rapidly increasing rate of male circumcision since 1950 under the influence of United States during Korean War. Until then, circumcision was against Korea's long and strong tradition of Confucianism; preserving one's body as it is given by his or her parents [3]. American military in the southern half of the Korean peninsula brought thousands of American troops with American culture and medical advancements to Korea [3].

From the mid-19th century, routine circumcision began to be adopted in the United States primarily due to hostility for diseases such as syphilis and cancer [4]. But currently, only half the boys are circumcised in the United States. South Korea has world's highest rate of circumcision [5]; among Asians countries with similar geographical and cultural background of Confucianism, South Korea has by far the highest rate. According to a 2001 Korean study, 78.2% of Korean men (any age group) were circumcised [3]. More notably, 86.3% of South Korean men among age 14-29 were circumcised [3]. This is by far the largest teenager absolute number of circumcision procedures in the world. Since there are virtually no Muslim and Jewish populations living in South Korea, it is convincing to say that majority of circumcision procedures are conducted for "medical" reasons rather than religious implications in the other parts of the world.

In sub-Saharan Africa, mass circumcision campaign was encouraged and practiced to prevent the spread of HIV: In Tanzania (2011: 5.9% adult prevalence with 1.4 million cases [6]), tribal circumcision is being transformed into medical circumcision [2]. With so many cases in the population, it is advisable to conduct the mass campaign. However, given the fact that there is low prevalence of HIV/AIDS in South Korean population, is having one of the world's highest rates of circumcision really a justifiable medical procedure? In addition, to what extent is circumcision beneficial in preventing HIV/AIDS among Korean population? Conversely, does South Korea have low prevalence of HIV/AIDS due to high circumcision rate? It is important to note that only positive aspects of circumcision reports were available to Korean medical community in the 20th century [3]. Initial spark of circumcision campaign was to prevent the spread of human papilloma virus (HPV) [3]. Coincidentally, sub-Saharan African countries are also pointing out the positive aspect of circumcision today.

Mills et al. conducted a meta-analysis of randomized controlled study consists of 11,050 men in evaluating the effectiveness of male circumcision for the prevention of heterosexually acquired HIV infection [7]. Male circumcision represents an important intervention in combating HIV/AIDS: showing protective effects of this intervention [7]. Mills et al. provided statistically significant data thorough extensive searching and removing various confounders with a conservative estimate. Although there are some limitations such as lacking long-

term data due to stopping the study [7] early and potentiating the protective effect of circumcision by providing safe-sex counseling, there is evidence of protective effect.

It is evident that current or past beliefs about circumcision held by the South Korean public and medical professionals were directly influenced by the American beliefs in the past [8]. However, trends and notions are changing over the globe. In addition, male circumcision may not be a high priority medical issue due to low prevalence of HIV/AIDS in South Korea. Here are some of the key points based on understanding the recently published meta-analysis from Mills et al. and outdated Korean medical consensus on circumcision.

1. Evaluate the currently available South Korean medical guidelines on circumcision with respect to evidence-based medicine. In addition, there must be formal position that Korean Medical Association take with respect to circumcision and HIV/AIDS prevention of heterosexually acquired contact. The guideline should juxtapose the current position and compare it to the currently available medical consensus of the world.

2. Implement policies to encourage researchers to conduct epidemiological data analysis of circumcision and HIV/AIDS prevention in South Korea; risk-decision analysis as well as cost-benefit analysis among Korean male circumcision versus HIV/AIDS prevention. In addition, conducting a study that evaluates the relationship between high prevalence of circumcision and low prevalence of HIV/AIDS in Korea should help assess the causal relationship. These data will be a stepping stone to render future South Korean policies.

3. Integrating inputs from cultural understanding of circumcision among South Korean men while looking at trends from the rest of the world. It would be particularly interesting to see the current trend of United States where the spark of male circumcision started. In addition, it is important to compare the current trends with a country with similar prevalence of HIV/AIDS with similar culture (i.e. Confucianism) with South Korea.

4. Enhance the awareness of HIV/AIDS in South Korea: The stigma of HIV/AIDS in Korea is quite different from the rest of the world; due to very low prevalence of the disease, implement effective

*Corresponding author: Chang J, Samford University, McWhorter School of Pharmacy, 800 Lakeshore Drive, Birmingham, AL 35229, USA, Tel: 205-726-4079; Fax: 205-726-2088; E-mail: jchang1@samford.edu

Received December 09, 2014; Accepted December 12, 2014; Published December 14, 2014

Citation: Kim SH, Chang J (2014) Trend of Male Circumcision and HIV Prevention of Heterosexually Acquired HIV in A Special Population: South Korea. Adv Pharmacoepidemiol Drug Saf 3: 171. doi:10.4172/2167-1052.1000171

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HIV prevention planning to the South Korea public. Emphasize key facts about male circumcision in combination with safe-sex practices education will provide synergistic effect [7].

South Korean physicians have accepted routine circumcision as “medical norm”. The “social norm” of having circumcised penis among school boys might instigate peer pressure among boys who have not received circumcision. Hence, it is important for to re-evaluate diverse opinions about circumcision from many different viewpoints (i.e. medical, economic or social point of view). It is important to use the Mills et al. article with caution since generalizability in Korean population is not very well-established due to difference in prevalence of HIV/AIDS in the population as well as discrepancy in accepting circumcision as a sole method to prevent HIV/AIDS.

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