

Special Issue and Perspective

# Cervical Cancer – a Worldwide Perspective

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The cervical cancer is yet an important murderer of women. In 2012, approximately 528,000 new cases of cervical cancer occurred, and caused more than 260,000 deaths. However, 90% of those deaths occurred in women of less-developed regions, like Africa [1].

Cervical cancer has reduced its incidence significantly in high-income countries. The first great reason was Pap smear. This inexpensive method reduced cervical cancer mortality in 6 to 10 years in Finland and Iceland, many years before introduction of Bethesda system [2]. However, this was quite different in countries like Mexico, where the struggle against cervical cancer began in the early-1970s [3] but only obtained good results until the middle-2000s [4]. The main causes to this huge difference were a well-organized screening, and the high-quality of the cytology. A well organization allows us to know where the population in risk is. The high-quality of the study is only possible with enough medical supplies, proper training in its execution, and adequate sample evaluation. Now, in the developed countries, there are new refinements to increase the exactness of the Pap smear: liquid-base cytology, HPV DNA testing, and automated sample evaluation. However, the cost of these methods is high and prohibitive to low-income countries. A low-cost option for these countries is visual inspection of the cervix [5]. This method is simpler than Pap smear and has equivalent sensitivity for identifying precancerous changes, and it needs a well-trained health care worker, not necessarily a physician.

The radical hysterectomy (a group of surgeries) was one of the first effective tools against cervical cancer. Consequently, these surgeries have been refined in different ways: techniques, classifications, and indications [6,7]. Nevertheless, also in these surgeries, there are several variations along the world. The laparoscopic vs. open radical hysterectomy shows similar oncologic results [8]. In Japan and Austria, the IIB cervical cancer cases are valid candidates for surgery [9,10]. In Italy, even cases in stage-III could be good candidates to surgery, after neoadjuvant chemotherapy [11]. Besides, surgeons in USA and Italy make lymphadenectomy not only in the pelvis, if not until the renal vessels [12,13]. Finally, old women could be candidates to radical hysterectomy with recent advances in surgery and anesthesia [14]. Unfortunately, all these refined surgical techniques are available only at highly specialized hospitals.

Furthermore, medical treatments for cervical cancer have obtained notable improvements. Some Italian researchers advocate for neoadjuvant chemotherapy in locally advanced cases, because the tumor down-staging allows doing radical surgery without adjuvant radiotherapy [11]. However, the most accepted therapy is the use of concurrent cisplatin based chemotherapy with radiotherapy for locally-advanced cases [15]. Unfortunately, these treatments require expensive and sophisticated medical supplies, existing in few places in the World. For example, in 2010, radiotherapy existed only in 44% of African countries, but brachytherapy was only available in 38% [16].

As a result of studies in viral biology, the most recent tool against cervical cancer is primary prevention with a vaccine against high-risk HPV [17]. This new tool could be the most important via to lower the incidence of this cancer. However, the vaccine is expensive [18].

We have diverse tools for cervical cancer detection, several treatments, and even a vaccine, but how could we give these tools to low-income countries? The answer is hard and complex. First challenge is the limited economic capabilities. Next, to change local health policies, to develop well-organized screening programs, Later to improve and adapt the use of scarce medical supplies with adequate trained health-personnel. Finally, develop a suitable regionalization of medical centers for locally-advanced cases' treatment.

I am sure the answer to these complex challenges is research. Yes, research to know where is the population in risk, in order to establish the best tools according to specific geography and populations needs; and to prepare well trained health-personnel in adequate clinics with enough supplies. We can solve the puzzle only if we know properly the components of our regional challenges with cervical cancer. Would you like to be part of the solution? Do not hesitate and do not lose the opportunity, the editorial Austin Publishing Group gives us a new journal -Austin Journal of Obstetrics and Gynecology-to show our research-findings to the world. Join us.

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