World day to fight against syphilis and congenital syphilis: let's eliminate them?

Dia mundial de combate à sífilis e à sífilis congênita: vamos eliminá-las?

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AN OLD PROBLEM

In his verses in the book "Syphilis Sive Morbus Gallicus" (Verona, 1530), in which the word "syphilis" appears for the first time, Hieronymi Fracastorii anticipated that this disease would persist:

"From the purple belly of the night, a slave / The strangest plague returned to devastate the world / Infecting the heart of Europe, the plague was thrown / From Lebanon to the waves of the Black Sea / When, in war, France marched to Italy / The disease has taken its name. I will dedicate my rhymes to this intruder of twenty plagues / That even if it's not welcome, it's eternal, since intends to remain here."

And even today, syphilis continues to plague many countries in the world, despite the discovery of penicillin.

In 2012, the World Health Organization estimated the existence of 17.7 million people with syphilis, and each year the occurrence is of 5,590,000 cases. The numbers by region are the following: Europe 440,000; Eastern Mediterranean 496,000; Southeast Asia 886,000; Americas 937,000; Western Pacific 993,000; Africa 1,843,000.

In several countries, especially in those of low-income population, the mother-to-child transmission of syphilis remains very high and is a common cause of death. Syphilis, after malaria, is the most frequent etiology of avoidable stillbirths in the world.

In Brazil, the Ministry of Health considers that in the last five years there has been a steady increase in the number of syphilis cases in pregnant women, as well as congenital syphilis and acquired syphilis, partially attributed to the increase in the coverage test, the expansion of serological tests use, less use of condoms, health professionals' resistance to penicillin management in primary health care and the lack of penicillin supply. The particular concern is the underreporting of cases of acquired syphilis and inappropriate treatment of partners, who are fatally associated with much of the disease during pregnancy.

The numbers of reported cases were as follows: acquired syphilis, 87,593; syphilis cases in pregnant women, 37,436; congenital syphilis cases, 20,474; and among them, 185 deaths in Brazil in 2016. There was a detection rate of 12.4 cases of syphilis in pregnant women/1,000 live births. The South and Southeast States showed higher rates (cases of syphilis in pregnant women were 16.3/1,000 live births and 14.7 cases of syphilis in pregnant women/1,000 live births, respectively).

In Brazil, congenital syphilis rates greater than syphilis in pregnant women have shown that there is still much to be done for the diagnosis and appropriate treatment in pregnancy. It is worrying that in 2016, 81.0% of mothers of children with congenital syphilis have reported prenatal care. Capital cities, such as Aracaju, Fortaleza, João Pessoa, Maceió, Natal, Recife, Teresina (Northeast) and Porto Alegre (South) presented more records of cases of congenital syphilis than the reported cases in pregnancy, which obviously demonstrates inadequate prenatal monitoring, lack of disease diagnosis in pregnant women, lack of notification at the appropriate time or all of that together. In http://indicadoressifilis.aids.gov.br/ (Accesssyphilis indicators panel here) it is possible to check the alarming figures on syphilis in Brazil.

It is a fact that the Unified Health System (SUS) in Brazil serves about 70% of the demand for health. However, there are areas like the city of Niterói (Rio de Janeiro) in which additional medicine is responsible for over 50% of health coverage. We also know that syphilis (acquired, in pregnant women, and congenital) is a notifiable disease. However, the notification of syphilis cases in this segment of the society is practically null. Therefore, there are more cases than those reported by the Ministry of Health.

The Center for Disease Control and Prevention (CDC-USA) believes that pregnant women should have access to early prenatal care and be serologically selected for syphilis during the first prenatal appointment, and again at 28 to 32 weeks of pregnancy and childbirth in high-risk areas.

To the Ministry of Health of Brazil, in order to assist and standardize immunological diagnosis of syphilis, there are three flowcharts. Two or more tests combined form a flowchart. This combination of sequential testing aims to increase the positive predictive value (PPV) of a reagent result in the initial test. The serial flowchart is logical and economical. Flowchart 1 is the conventional approach for the diagnosis of syphilis through immunological tests, in which a nontreponemal test is used as first test, followed by a treponemal test to confirm the diagnosis. Flowchart 2 consists in a reverse-conventional approach for the diagnosis of syphilis by immunological tests, in which a treponemal test (Elisa, chemiluminescence, or another equivalent) is the first test, followed by a nontreponemal test to confirm the diagnosis and the dilution/titling for further serological cure control. Flowchart 3 consists of conventional reverse approach for syphilis diagnosis by immunological tests, in which a rapid treponemal test is used as first test, followed by a nontreponemal test for confirmation of the diagnosis. However, if the nontreponemal test is nonreactive, flowchart 3 recommends the use of a third lab test of treponemal class.

Aware of the seriousness of the situation, the Brazilian Ministry of Health created the "Agenda of Action Strategies to Reduce Congenital Syphilis in Brazil", a collective construction with class associations.

Niterói, October 14, 2018
Dear Dr. Tedros Adhanom Ghebreyesus,
General Director of the World Health Organization (WHO)
Geneva, Switzerland
MD. PhD, Full professor, STD Sector, Universidade Federal Fluminense, Niterói (RJ), Brazi.

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In addition, in order to emphasize the awareness of all non-expert population and health professionals, strengthening the importance of adequate diagnosis and treatment of syphilis (especially until the 28th week of gestation, as until this period the best results for the fetus are obtained) as a sexually transmitted disease, particularly to pregnant women during prenatal period, the Brazilian government approved the law no. 13,430/2017 establishing the "National Day to Combat Syphilis and Congenital Syphilis", on the third Saturday of October. In this year, it will be on October 20, 2018. The election of the law began with our group of Brazilian Society of STD, STD sector of the Fluminense Federal University, Society of Gynecology and Obstetrics of Rio de Janeiro, of Febrasgo, of the Fluminense Medical Association and many other institutions in the city of Niterói in 2004, with a public petition and a demonstration called March against Syphilis, in Icaraí Beach.

Syphilis in pregnancy, although known and well defined, is still a challenge to the world, and even more to developing countries. Intense and well-planned actions must be taken by all agencies involved so that the incidence of the disease is drastically reduced; otherwise, we will continue to see serious complications and death of conceptus inside and outside the womb.

Worldwide, therefore in Brazil, syphilis is a neglected disease warning signs of its advance. Even so, there is a basic failure at researching for more comfortable treatments and vaccine development.

Recently, in a prestigious scientific international journal (Sex Transm Dis. 2018;45(3):139-43) an article informed that syphilis prevention and its control is a public health priority in Japan, reporting the rapid increase in primary, secondary and congenital syphilis cases, in particular in the period from 2012 to 2016. Congenital syphilis, in Japan, increased from 0.4 in 2012 to 1.4 per 100,000 live births. Tokyo showed the highest rate: 3.98 per 100,000 live births.

In Center for Disease Control and Prevention National profile — overview: syphilis 2017 [internet]. Atlanta: CDC; 2018. Available at: https://www.cdc.gov/std/stats16/syphilis.htm it is possible to observe that all types of syphilis are increasing in the United States.

During the last Conference of STD Prevention held by the Centers for Diseases Control and Prevention of the United States (CDC-USA), 27-30 August 2018, several researches on syphilis and congenital syphilis were presented. We highlight one of them, which reports that congenital syphilis cases (CS) in California have increased 500% from 2012 to 2016. CS cases should be considered public health sentinel events and examined by missed opportunities to identify interventions and prevent future cases.

In Europe, according to the Annual Epidemiological Report on Congenital Syphilis for 2016 of the European Centre for Disease Prevention and Control, the tendency to congenital syphilis cases reported has remained stable in the recent years, but some countries mentioned small increases in comparison to 2015. But it was observed that there may be underreporting of cases because seven countries contributed to the notification of congenital syphilis, and other 13 reported zero cases in 2016 (https:// ecdc.europa.eu/sites/portal/files/documents/congenital-syphilis-annual-epidemiological-report-2016.pdf).

Congenital syphilis is a shame not only to health managers, but to the entire population, particularly to health professionals, as diagnosis and treatment are well known, widely available and highly effective for more than seven decades. However, these supplies need to get to patients (and their sexual partnerships) as soon as possible in the emergency basis, since there is a risk of death (fetus) if the patient is a pregnant woman.

If there is a disease that we can eliminate (with 0.5 rate of cases per 1,000 live births) in one or two years, it is called congenital syphilis. So, we all must be efficient and responsible for all our actions. We mean a store clerk, a manicure, a health professional: the purpose is to serve the way we would like to be served.

Is it time to have a World Day to Fight Syphilis and Congenital Syphilis?

This proposal was signed by the following entities:

- Academia de Medicina do Estado do Rio de Janeiro;
- Academia Nacional de Medicina;
- Associação Médica do Estado do Rio de Janeiro (Somerj);
- Associação Médica Fluminense;
- Comissão Nacional Especializada em Doenças Infectocontagiosas da Febrasgo;
- Federação Brasileira das Associações de Ginecologia e Obstetrícia (Febrasgo);
- Santa Casa da Misericórdia do Rio de Janeiro;
- Setor de Doenças Sexualmente Transmissíveis da Universidade Federal Fluminense;
- Sociedade Brasileira de Doenças Sexualmente Transmissíveis;
- Sociedade Brasileira de Dermatologia Regional do Rio de Janeiro;
- Sociedade Brasileira de Infectologia;
- Sociedade Brasileira de Imunização
- Sociedade de Ginecologia e Obstetrícia do Estado do Rio de Janeiro (Sgorj);
- Sociedade de Infectologia do Estado do Rio de Janeiro.

Conflict of interests

The authors declare no conflict of interests.

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