An Oral Abscess as the Entrance Leading to Endocarditis: A Sexual Behavior Role

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Introduction

The risk factors for infective endocarditis (IE) in the population are changing [1]: the reported worldwide increase in the incidence of IE has been associated with the widespread use of medical devices and procedures responsible of health care associated infection [2,3]. Endocarditis incurred by Streptococcus agalactiae in adults (non-pregnant females and men) has increased in recent years [4,5], even though the source of infection due to this bacterium and the portal of entry are unclear and not often well documented.

Concerning the possible sexual port of entry in the cause of endocarditis, this mode of transmission should be suspected in a search of clinical history, especially in recurrent endocarditis.

Case Report

We report on a 49-year old female with recent adjustment or oral contraceptive use one month after which probably due to the breakdown of mucocutaneous barriers she had an oral abscess, apparently treated successfully with amoxicillin/clavulanate. Microbiological culture of the abscess and blood cultures made at another hospital in Milan revealed the presence of S. agalactiae. After another month post-surgery, the patient had an increase in C-reactive protein and fever, entailing a reassessment of the patient with a possible diagnosis of postsurgical pericarditis.

Further microbiological investigation was performed. Discussion with the patient and her husband, asymptomatic for urogenital discomfort or discharge, revealed that the couple had had oral sex while the husband was under orthodontic treatment a few days before the first emergency room episode. An oral swab determined he was colonized orally by S. agalactiae. We hypothesize that the vaginal infection due to S. agalactiae pre-surgery and during the dental work was caused by the entrance of the pathogen into the patient's circulation and therefore was responsible for infection of the valve.

IE risk factors have been identified [6], and they include age over 60 years and a diagnosis of diabetes, cancer, chronic renal disease, and...
neurological vessel disorder; however, in evaluating the medical history, one should consider sexual habits and dental status.

Even though it has been reported [7] that IE can be induced by bacteremia attributable to dental procedures as happened to our patient this is the first time that colonization/vaginal infection of a woman has been suspected of being transferred through oral sex.

Comment

Although S. agalactiae is responsible for various clinical forms of skin, soft tissue, bone, and urinary tract infections [8] most commonly occurring between mother and neonate more rarely it could be a pathogen involved in endocarditis. Even if, in the past few years, there have been epidemiological changes in the bacterium responsible for the infections [9], S. agalactiae is a rare cause of IE (1.7% of all cases) [10]. We believe that the change of risk factors for endocarditis should factor in sexual habits, especially in view of the increased frequency of sexually transmitted bacterial endocarditis. To support our theory, we call attention to 18 papers in the literature reporting frequency of sexually transmitted bacterial endocarditis. To support our theory, we call attention to 18 papers in the literature reporting frequency of sexually transmitted bacterial endocarditis. To support our theory, we call attention to 18 papers in the literature reporting frequency of sexually transmitted bacterial endocarditis. To support our theory, we call attention to 18 papers in the literature reporting frequency of sexually transmitted bacterial endocarditis.

The Centers for Disease Control and Prevention has campaigned in an effort to raise awareness among adolescents (aged 13-24) about the sexual behaviors at risk for venereal diseases, infections, and unintended pregnancies due early coitarcha.

Therefore, our work should focus on the new population at risk for endocarditis, other than the injecting drug users dying of endocarditis, which have been typical of the past decade; sexual behavior should not be omitted in evaluating a medical history.

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