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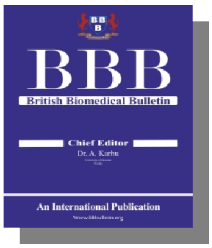

Case Report

A Case Report of Donovanosis – Granuloma Inguinale

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ABSTRACT

A case of Donovanosis is observed. While observing this case, initially it was suspected with verrucous type. Clinically identified as ulcer over right labium majus with pain and itching over the lesions. On examination by Obstetrician, single granulomatous ulcer without induration identified. No observation of leukoplakia and tissue smear for the demonstration of CBG showed negative. The treatment started with 100mg doxycycline twice a day for 10 days, where the ulcer is not healed but the morphology of the lesion changed. After referring to Surgery department, it was suspected to squamous cell carcinoma where the excisional biopsy also confirmed the same. Later right radical hemivulvuctomy done.

Introduction

Granuloma inguinale (GI) or Donovanosis is commonly listed on a differential diagnosis of genital ulcers. GI is a relatively uncommon disease affecting skin and subcutaneous tissue of genital, inguinal, anal and oral regions of the body and rarely other organ[1-3]. While primarily considered a disease of tropical regions, it has been seen in all parts of the world, men are identified as being infected in excess of twice as often as women. Most infections will occur in people between the ages of twenty to forty years. This disease is very rarely seen in young children or elderly individuals[4]. The GI is caused by the bacterium *Klebsiella granulomatis*. The incubation period of the disease appears to be somewhere between one to twelve weeks after a person comes in direct contact with the bacteria.

Granuloma inguinale remains communicable for whatever length of time the infected person remains untreated and bacteria from the lesions are present.

Predominantly males are affected than females; while homosexuals are at a greater risk of contracting the disease, it is rarely seen in the heterosexual partners of those who are diagnosed as being infected by the bacteria[5]. In recent days, the number of cases gradually increased due to the invasion of western cultures in India. Because of its rarity, many physicians are unfamiliar with the nature of the disease. Moreover, the chlamydial disorder, lymphogranuloma venereum, is often confused with GI[6].

GI is a chronic, slowly progressive, mildly contagious disease, commonly affecting male and female external genitalia with little or no tendency for healing without treatment[7]. It heals with extensive fibrosis but recurs even after complete successful treatment[8,9]. Some studies highlighted that GI is also observed without the involvement of the lymph nodes even in long standing cases as the diagnostic hallmark. Even before the implementation of syndromic management, GI cases were not seen. The treatment may be successful with the wide usage of azithromycin[10], co-trimoxazole[11] and doxycycline[12] to which the organism is sensitive. We recently had the opportunity to treat a patient with disabling granuloma inguinale and herein report the experience.

Report of a Case

A 42 year old female attended Skin and STD Outpatient department for the complaint of ulcer over right labium majus for a period of 6 months. She had pain and itching over the lesion. The clinical picture of the ulcer closely resembled the features of hypertrophic verrucose type of granuloma inguinale (the base of the ulcer is raised above the surrounding skin and consists of large, coarse, pale red, warty granulation tissue giving the surface buckled appearance). Since the lesion is over the genitalia, the patient did not give consent for the photo. The patient is having type II diabetes and she is taking oral anti-diabetic drugs. For further diagnosis, the patient was referred to Obstetrician where it was examined as single granulomatous ulcer with 2cms margins but not indurated.

The obstetric history recorded the hysterectomy done 9 months before. No leukoplakia observed. The tissue smear for demonstration of CBG was negative and very early cases organism may be negative. The treatment process initiated with doxycycline 100mg, twice a day for 10 days. After 10 days of antibiotic therapy, the ulcer did not heal where the morphology of the ulcer was changed. The ulcer becomes fleshy, exuberant growth with everted edge.

For further management, the patient referred to surgery department, where surgeons suspected as squamous cell carcinoma and excisional biopsy was done resulted with Shos Island of tumor tissue exhibiting features of grade II invasive squamous cell carcinoma of right labium majus. With this report patient referred to Obstetrics and Gynecology department for further management. Right radical hemivulvectomy with bilateral inguinal block dissection done thereby post biopsy 1cm X 1cm scared area 7cm away from the clitoris of right labium majus, 3 right sided inguinal nodes and 2 left sided inguinal nodes were sent for histopathological examination. Improvement was noted within a few days and complete epithelization had occurred by the end of the third week. The odor and the exudates disappeared within a week. The ulceration healed with the formation of a soft, partially depigmented scar.

Discussion

Granuloma inguinale is a chronic cause of genital ulceration, the incidence of which is decreasing significantly in developed and developing countries. The pathologic agent is *Klebsiella granulomatis*,

a gram negative, encapsulated, facultative, obligate intracellular, pleomorphic bacillus[4,13]. More than 70 percent of cases occur between the ages of 20 and 40 years; it most commonly afflicts patients in the 3rd decade of life. The infectivity rate among sexual partners ranges from 0.4 percent to 52 percent. After an incubation period of eight days to twelve weeks (most commonly two weeks), single or multiple subcutaneous papules or nodules grow and erode to form painless, beefy ulcerations with friable, clean bases and distinct, rolled, raised margins. Without treatment, lesions may become confluent and may cause progressive mutilation and destruction of local tissue[14]. This was typically seen in our case. Most of the time, the GI cases were mistakenly reported and diagnosed clinically for squamous cell carcinoma. Basically the clinical presentations of the GI are classified into four types[15] and are depicted in Table 1.

The major observation of this case is a hypertrophic verrucous type, fleshy exuberant type and the destructive necrotic type mimics squamous cell carcinoma. In this case, when she came for, first check up clinically it resembled the verrucous type. After 10 days, when she came for follow up the features changed and appeared as a fleshy exuberant type where she have the complaint of pain and itching over the lesion. But the absence of bright red velvety glazed moist granulation tissue with wavy margin described that this disease is rarely involved in the disturbances of lymph nodes that made to think of squamous cell carcinoma. The absence of involvement of lymph node even in extensive long standing cases of GI, is one of the hallmarks of the disease.

The untreated disease progresses slowly but relentlessly. The foul smelling lesions enlarge, often becoming secondarily infected with other bacterial infections including fuso-spirochetal. The patient may be febrile and anemic. Loss of weight is common, extreme cachexia and death may ensue[16]. The clinical appearance of the lesions and the demonstration of Donovan bodies enable one to make a diagnosis. Casual smears or swabs of the surface of the lesion are inadequate for the demonstration of the organism[17]. A piece of granulation tissue from the border should be obtained with or without previous infiltration anesthesia.

Histopathological examination of a biopsy specimen may be necessary, although in many cases the organism is more easily seen by the crush smear technique. An acute and granulomatous inflammation without tubercle formation is seen histologically. In addition, marked pseudo epitheliomatous hyperplasia is commonly present at the edge of the ulcer[18]. In common with other chronic granulomas of the integumentary system such as syphilis, tuberculosis, yaws, mycotic infections, etc., a pseudoepitheliomatous hyperplasia of the marginal epithelium is the characteristic histological feature of granuloma inguinale[9,19]. The predominance of polymorphs in the superficial part of the ulceration along with the invasion of the prickle cell layer of the same leucocytes in another feature of granuloma inguinale are observed which is not usually the case in the squamous cell epithelium. Two to ten grams of broad spectrum antibiotics (tetracycline, doxycycline, azithromycin) are given orally each day for two to four weeks. Alternatively intramuscular injection of streptomycin may be effective[12].

Donovan bodies disappear from the lesions within a few days and rapid healing takes place over the period of two weeks. Relapses may occur up to several years after healing, but these usually respond to retreatment. Serological test for syphilis should be done since syphilis may have been acquired simultaneously with granuloma inguinale[19]. Deformities have to be corrected

surgically after antibiotic treatment, post treatment biopsy should be made of any portion of the lesions that do not heal for further development of carcinoma in the area involved.

Because of the absence of typical morphology of the ulcer i.e., bright red velvety granulomatous ulcer with a wavy margin, absence of lymph node involvement, squamous cell carcinoma was diagnosed and it was supported by histopathological report. This case is reported to reemphasize the importance of knowledge about the prevalence status of a disease, detailed clinical examination, follow up on a case, biopsy and histopathological examination.

Conclusion

Physicians must also consider granuloma inguinale lesions as an indication to screen for other sexually transmitted diseases. These lesions may serve to identify high risk patients, and patients susceptible to HIV. Every attempt should be made to examine the patient's sex partners. Public health, disease intervention specialists will assist in the follow-up of patients with granuloma inguinale. The outcome is good if the diagnosis is established early; fatal cases, mainly occur because of misdiagnosis. Thorough pelvic examination should play a role in decreasing the morbidity and mortality due to donovaniasis.

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