

Erythroplasia of Queyrat – A Case Report

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Abstract

Erythroplasia of Queyrat (EQ) is an uncommon preinvasive penile lesion with a high predilection to progress to invasive carcinoma. They typically occur in uncircumcised men with no established etiological factors. We present a 45-year-old mechanic with an erythematous plaque over the glans penis for 6 months, diagnosed as EQ. Physicians tend to treat genital lesions on a clinical diagnosis owing to its likely inflammatory nature; however, the risk of it being a preinvasive lesion must be borne in mind. A low threshold must be held to perform a histopathological examination to avoid missing a potentially malignant lesion.

Keywords: Erythroplasia, penis

Introduction:

Erythroplasia of Queyrat (EQ) is an uncommon, clinical variant of in situ squamous cell carcinoma of the penis¹ It is an intraepidermal carcinoma in situ, first recognized by Paget in 1874 and was later described by Tarnowsky in 1891 and was subsequently tagged a distinct entity by 1911.^{2,3}

It is a disease of middle-aged to elderly males and has been described in males aged 20-80 years.⁴ EQ is seen almost exclusively in uncircumcised men. The disease often progresses to invasive carcinoma at a rate varying from 10-33 percent, spontaneous regression being less common⁵ Co-infection with HPV types 8, 16, 18, 39, and 51 have been observed in 70-100 percent cases of carcinoma in situ.⁶

Case History:

A 45-year-old man, a mechanic by occupation, presented to the dermatology department at our center with complaints of redness and a raised lesion over the glans penis for 6 months which has progressed in size for one month. It was painless and non-itchy and without any history of discharge. He had no known medical comorbidities, and he denied any history of recent sexual contact. The surgical and family history was insignificant. On cutaneous examination, there was an ill-defined, shiny, bright, non-tender erythematous plaque over the dorsum of the glans penis measuring about 1.5x2 cm in size. (Figure: 1)



Figure:1 Clinical presentation

On systemic examination, his abdomen was soft and non-tender. There was no palpable inguinal lymphadenopathy, and scrotal examination revealed normal testes. Other systems were normal. Skin biopsy was performed under local anesthesia; it revealed dense lymphocytic infiltrate in the superficial

dermis and multiple atypical keratinocytes with deeply stained pleomorphic nuclei disorderly arrangement.

Diagnosis:

Erythroplasia of Queyrat

Discussion:

Penile cancer is uncommon and only accounts for about 1% of malignancies diagnosed in the United States. The rates are much greater in Asia, South America, and Africa, where it approaches 10%.⁸ As the initial presentation, patients with premalignant lesions account for about 10% of all penile malignancies, with the vast majority occurring on the glans penis. Its etiology is unknown; the implicated risk factors include local carcinogenic influences in uncircumcised men: poor hygiene, smegma, trauma, friction, heat, maceration, inflammation, phimosis, and dermatoses, lichen sclerosis, and smoking (tar metabolites in urine).⁹ There are three clinical variants of Carcinoma of the penis in situ, namely Erythroplasia of Queyrat, Bowen disease of the penis (BDP), and bowenoid papulosis (BP).¹⁰ The risk of malignant transformation is the highest in EQ among the three variants and is higher among immunocompromised individuals.¹¹ The treatment options are vast for Penile EQ and include local resection, laser therapy, photodynamic and topical therapy with 5-fluorouracil or 5% imiquimod cream.^{12,13}

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