

## MAJOCCHI GRANULOM: PRIKAZ PACIJENTA

Milan Bjekić<sup>1,2</sup>, Danijela Pecarski<sup>2</sup>

<sup>1</sup> Gradski zavod za kožne i venerične bolesti, Beograd, Srbija

<sup>2</sup> Akademija strukovnih studija Beograd, Odsek Visoka zdravstvena škola, Beograd, Srbija

### SAŽETAK

**Uvod/cilj:** *Majocchi* granulom predstavlja duboku hroničnu infekciju folikula dlake u kojoj dermatofiti prodiru u dermis i/ili hipodermis izazivajući granulomatozne promene na koži. Postoje dve kliničke forme oboljenja: površna, koja se ispoljava u vidu perifolikularnih papula i javlja se kod imunokompetentnih pacijenata i duboka forma, praćena pojavom plakova i nodusa, opisana kod imunosuprimiranih osoba. Najčešći uzročnik ovog oboljenja je dermatofit *Trichophyton rubrum*. Cilj rada je da prikaže retku lokalizaciju ovog oboljenja u predelu vulve.

**Prikaz bolesnika:** Imunokompetentna pacijentkinja, stara dvadeset godina, javila se lekaru sa brojnim papulama, nodusima i pustulama u predelu kosmatog dela vulve. Iz uzorka pilinga kožnih promena mikroskopski pregled sa kalijum hidroksidom bio je negativan, dok je na *Sabouraud*-ovom glukoznom agaru izolovan *Trichophyton rubrum*. Nakon četvoronedeljne oralne sistemske antimikotične terapije, došlo je do regresije promena.

**Zaključak:** Kod pojave hronične infekcije u vidu papuloznih i nodoznih promena u regiji vulve, uvek treba razmišljati i o ovoj retkoj gljivičnoj infekciji.

**Ključne reči:** *Majocchi* granulom, vulva, *Trichophyton rubrum*, prikaz slučaja

### Uvod

Dermatomikoze su česta oboljenja kože kod adolescenata (1), a izazivaju ih keratinofilne gljive koje parazitiraju u rožnatom sloju (lat. *stratum corneum*), kosi i noktima. *Majocchi* granulom je retka, duboka gljivična infekcija u kojoj patogen napada folikule dlake, prodirući u dermis ili subkutano tkivo, tako formirajući granulomatozne dermalne i/ili hipodermalne promene.

Najčešći uzročnik ove infekcije je *Trichophyton rubrum*, i postoje dve kliničke forme oboljenja (2). Prva se najčešće javlja kod zdravih osoba i karakteriše je površinska perifolikularna papularna infekcija, dok je druga praćena dubokim subkutanim nodusima i obično se javlja kod imunokompromitovanih osoba. Smatra se da ovo oboljenje izazivaju produžena primena topikalnih steroida ili trauma na koži posle brijanja nogu ili drugih kosmatih delova kože, naročito kod žena. Međutim, infekcija vulve je retko prijavljivana (3).

Cilj ovog rada je da prikaže retku lokalizaciju ove duboke gljivične infekcije.

### Prikaz pacijenta

Dvadesetogodišnja imunokompetentna studentkinja javila se lekaru u Gradski zavod za kožne i venerične bolesti u Beogradu zbog lezija na vulvi koje su izazivale svrab i bolele mesec dana. Upućena je od strane ginekologa koji je lečio lezije deset dana oralnim antibioticima i kremom topikalnih steroida, što je malo ublažilo bolove. Pacijentkinja je imala naviku da brije bikini zonu i negirala je postojanje traume ili prethodne infekcije pubične regije, a isti brijač je koristila za brijanje nogu i pazušnih jama.

Fizički pregled je pokazao postojanje brojnih eritematoznih papula i nodusa koji su konfluirali u plaksasuperponiranim pustulama prekrivajući njen stidni brežuljak (lat. *mons pubis*) (Slika 1). Dalji pregled je pokazao postojanje alopecičnog polja u pubičnoj regiji. Pacijentkinja je osećala blagi svrab (pruritus). Inače, bila je zdrava i nije

---

**CASE REPORT**

---

**MAJOCCHI'S GRANULOMA OF THE VULVA – A CASE REPORT**

---

**Milan Bjekic<sup>1</sup>, Danijela Pecarski<sup>2</sup>**<sup>1</sup> City Institute for Skin and Venereal Diseases, Belgrade, Serbia<sup>2</sup> Academy for Applied Studies Belgrade, The College of Health Sciences, Belgrade, Serbia

---

**SUMMARY**

**Introduction/Aim:** Majocchi's granuloma is an infrequent deep-seated fungal infection where pathogen invades hair follicles, entering the dermal and subcutaneous tissue, thus forming granulomatous dermal and/or hypodermal changes. There are two clinical types: the first one is common in healthy individuals characterized by superficial perifollicular papular infection, and the second is followed by the deep subcutaneous nodules usually reported among immunocompromised hosts. This infection is usually caused by *Trichophyton rubrum*. The aim of this paper is to show the rare localization of this disease in the area of the vulva.

**Case report:** We present a 20-year-old immunocompetent woman with multiple papules, nodules, and pustules on the hairy part of the vulva. Potassium hydroxide preparations of skin scrapings were negative and culture performed on Sabouraud glucose agar revealed *Trichophyton rubrum*. The patient was treated with the oral systemic antifungal therapy for four weeks and all lesions resolved.

**Conclusion:** Majocchi's granuloma should not be overlooked in patients with papular and nodular lesions in the vulvar region.

**Key words:** Majocchi's granuloma, vulva, *Trichophyton rubrum*, case report

---

**Introduction**

Dermatomycoses are frequent skin disorders in adolescents (1) and they are caused by keratinophilic fungi which parasitize in the *stratum corneum*, hair and nails. Majocchi's granuloma is an infrequent deep-seated fungal infection where pathogen invades hair follicles, entering the dermal and subcutaneous tissue, thus forming granulomatous dermal and/or hypodermal changes.

This infection is usually caused by *Trichophyton rubrum*, and there are two clinical types (2). The first one is common in healthy individuals characterized by superficial perifollicular papular infection, and the second is followed by the deep subcutaneous nodules usually reported among immunocompromised hosts. The disorder is thought to be precipitated by prolonged use of topical steroids or by trauma to the skin after shaving the legs or other hair-bearing areas, especially in women. However, infection of the vulva is rarely reported (3).

The aim of this paper was to report a rare localization of this deep fungal infection.

**Case report**

A 20-year-old immunocompetent girl, a student, presented at the City Institute for Skin and Venereal Diseases in Belgrade with a one-month history of itchy and painful lesions on her vulva. She was referred by her gynecologist who had treated the lesions for ten days with oral antibiotics and topical steroid cream with a slight improvement of the pain. She used to shave the bikini area and denied any history of trauma or previous infections of the pubic region, but she used the same razor for shaving both legs and armpits.

Physical check-up showed that there were numerous erythematous papules and nodules coalescing into the plaque with superimposed pustules covering her *mons pubis* (Figure 1). Further examination also revealed patches of alopecia in the pubic area. The patient



**Slika 1.** Multiple papule i nodusi koji konfluiraju u plak sa superponiranim pustulama i alopecičnim poljem u pubičnoj regiji

koristila lekove, a njena istorija bolesti bila je bez značajnih oboljenja. Rutinske biohemijske analize krvi bile su u granicama normale.

Mikološki pregled sa kalijum hidroksidom (KOH) iz uzorka pilinga kožnih promena bio je negativan, dok je *Trichophyton rubrum* izolovan iz uzorka na *Sabouraud*-ovom glukoznom agaru. Sve lezije su se povukle nakon lečenja sistemskom antimikotičkom terapijom. Pacijentkinja je koristila 200 mg itrakonazola dnevno u periodu od četiri nedelje. Lezije su se potpuno povukle, a test sa kalijum hidroksidom i mikološka kultura dve nedelje nakon toga bili su negativni. Pacijentkinji su ponovo izrasle pubične dlake dva meseca nakon lečenja.

Površinski perifolikularni oblik *Majocchi* granuloma najčešće se javlja na potkolenici i ručnom zglobu. Diferencijalna dijagnoza uključivala je bakterijske pioderme, netuberkulozne mikobakterijske infekcije, i sistemske gljivične infekcije (4). Topikalni agensi su retko efikasni u terapiji zbog dubine infekcije. Stoga su uglavnom potrebni oralni antimikotički lekovi (5).

### Zaključak

Dermatolozi i ginekolozi ne sreću često *Majocchi* granulom vulve i on je retko opisivani u medicinskim časopisima. Ne treba zanemariti značaj ovog oboljenja kod pacijenata sa papuloznim i nodoznim lezijama u predelu vulve.

### Zahvalnost

Ovaj rad je podržalo Ministarstvo nauke i tehnologije Srbije, kroz ugovor br. 175042 (2011-2019).

### Literatura

1. Bjekić M, Vučinić M, Šipetić-Grujičić S. Epidemiološke i kliničke karakteristike dermatomikoza kod dece i adolescenata. *Zdravstvena zaštita* 2015; 44(2):10-16.
2. Ilkit M, Durdu M, Karakas M. Majocchi's granuloma: a symptom complex caused by fungal pathogens. *Med Mycol* 2012; 50(5):449-57.
3. Chang SE, Lee DK, Choi JH, Moon KC, Koh JK. Majocchi's granuloma of the vulva caused by *Trichophyton mentagrophytes*. *Mycoses* 2005; 48(6):382-4.
4. Gupta S, Kumar B, Radotre B, Rai R. Majocchi granuloma trichophyticum in an immunocompromised patient. *Int J Dermatol* 2000; 39(2):140-1.
5. Bjekić M, Gajica-Basara J. Majocchi's granuloma in a healthy adult man – a case report. *Serb J Dermatol Venereol* 2015; 7(1): 34-40.



**Picture 1.** Multiple papules and nodules coalescing into the plaque with superimposed pustules and patches of alopecia in the pubic area

experienced mild pruritus. Otherwise, she was healthy and not taking any medications, her medical history was without significant illness. Complete blood count and routine biochemistry tests were normal.

On mycological examination, potassium hydroxide preparations of the skin scraping were negative and the *Trichophyton rubrum* was isolated from a culture of skin scrapings grown on Sabouraud glucose agar. All lesions resolved after treating the patient with systemic antifungal therapy. The patient was given 200 mg of itraconazole daily for a period of four weeks. This caused the lesions to fully recede, while the potassium hydroxide (KOH) test and fungal culture conducted two weeks afterwards were negative. The patient experienced pubic hair regrowth within 2 months of treatment.

The superficial perifollicular form of Majocchi's granuloma occurs most frequently on the shins or wrists. The differential diagnosis included bacterial pyodermas, nontuberculous mycobacterial infections, and systemic fungal infections (4). Topical agents are hardly ever effective therapeutically due to the deep infection location. Therefore, oral antifungal agents are largely needed (5).

### Conclusion

Majocchi's granuloma of the vulva is seldom encountered by dermatologists and gynecologists and rarely described in medical journals. This disease should not be overlooked in patients with papular and nodular lesions in the vulvar region.

### Acknowledgement

This work was supported by the Ministry for Science and Technology of Serbia, through Contract No. 175042 (2011-2019).

### Literature

1. Bjekic M, Vucinic M, Sipetic-Grujicic S. Epidemiological and clinical characteristics of dermatomycoses in children and adolescents. *Health Care* 2015; 44(2):10-16.
2. Ilkit M, Durdu M, Karakas M. Majocchi's granuloma: a symptom complex caused by fungal pathogens. *Med Mycol* 2012; 50(5):449-57.
3. Chang SE, Lee DK, Choi JH, Moon KC, Koh JK. Majocchi's granuloma of the vulva caused by *Trichophyton mentagrophytes*. *Mycoses* 2005; 48(6):382-4.
4. Gupta S, Kumar B, Radotre B, Rai R. Majocchi granuloma *trichophyticum* in an immunocompromised patient. *Int J Dermatol* 2000; 39(2):140-1.
5. Bjekic M, Gajica-Basara J. Majocchi's granuloma in a healthy adult man – a case report. *Serb J Dermatol Venereol* 2015; 7(1): 34-40.

**Sukob interesa:** Nije prijavljen.

**Primljen:** 17.09.2020.

**Revizija:** 15.09.2020.

**Prihvaćen:** 8.12.2020.

**Prvo online postavljanje:** 11.12.2020.

---

**Autor za korespondenciju:** prim. dr sc. med. Milan Bjekić, Gradski zavod za kožne i venerične bolesti, Džordža Vašingtona 17, Beograd 11000, Srbija; e-mail: milinkovski@gmail.com

---

**Conflict of interest:** None declared.

**Received:** 09/17/2020

**Revised:** 09/15/2020

**Accepted:** 12/08/2020

**Online first:** 12/11/2020

---

**Corresponding author:** prim. dr sc. med. Milan Bjekic, City Institute for Skin and Venereal Diseases, Belgrade, Serbia, Džordža Vašingtona 17, Belgrade 11000, Serbia; e-mail: milinkovski@gmail.com

---