Open Peer Review on Qeios

Molluscum Contagiosum: Case Report in A 10-Year Period (2008-2017)

Jorge Lopez Olmos

Funding: No specific funding was received for this work.

Potential competing interests: No potential competing interests to declare.

Abstract

Objective. We present a series of 10 cases of Molluscum contagiosum (MC) in a 10-year period (2008-2017). Over 51,342 consultations during these years, they represent 0.01% of the total. The average age was 38 years. The average parity was 0.7 (but 50% are nulliparous). They presented multiple lesions on the vulva, perineum, buttocks, inner thighs, and/or suprapubic area. The objective of the study is to compare the progression of the disease with and without treatment.

Materials and Methods. Anamnesis, clinical examination, and photography were performed with the informed consent of the patients.

Results. In 3 cases, there was abnormal vaginocervical cytology (ASCUS, LSIL) associated with positive HPV. 5 cases did not receive any treatment, and the lesions disappeared before one year (7 months on average). 5 of the cases were treated with imiquimod, and the lesions resolved in 5 months on average. However, they required several treatments.

Conclusion. MC is considered a low-frequency STD. It is the visual aesthetics rather than the symptoms that bother the most.

Dr. JORGE LOPEZ-OLMOS

Gynecology department, Centro de Especialidades de Monteolivete, Valencia (Spain)

Keywords: Molluscum contagiosum, Umbilicated papules, Imiquimod.

Introduction

Molluscum contagiosum (MC) is a viral infection that affects the skin; it is a benign tumor[1]. It is caused by a poxvirus, a DNA virus, the Molluscipoxvirus, with 2 subtypes: MCV I and MCV II. The virus has not been grown in cultured cells. The

virus enters through the epithelium of the follicular infundibulum. The epidermis shows hypertrophy and hyperplasia, which spreads out to the dermis. They are papules that can be found on the cutaneous surface.

They have a pearly appearance, are round-shaped skin-colored papules, with a dimple in the middle (not in all of them). With a good immune response, the lesions resolve spontaneously within months [2]. The size of the papules averages 1-5 mm, with nodules averaging 6-10 mm. Usually, the number of lesions remains below 30 [3].

The infection is endemic within institutions and communities where poor hygiene, poverty, promiscuity, and overcrowding prevail [3]. It can be transmitted through autoinoculation and fomite transmission (bath towels, tattoo instruments, Turkish baths, etc.).

The disease is transmitted through direct skin contact. In children (it can also be transmitted through saliva), lesions involve the face, trunk, and arms. In adults, it can be transmitted through sexual contact in the genital region and thighs. The incubation time is between 2 and 7 weeks [1]. Usually asymptomatic or itchy, it is more prevalent in tropical areas. The incidence is 2-8%. Incidence has been increasing, particularly in the age group between 15 and 29 years [3].

In immunocompromised individuals, the number of lesions increases, and they are atypical, giant, or warty (> 1 cm), and tend to relapse [1][2]. In these cases, a biopsy must be performed, in which large eosinophilic inclusion bodies will be seen with epidermal cells, Henderson-Patterson inclusion bodies, or Molluscum bodies [1][3].

When squeezing the lesion, a hard white spot in the middle comes out, and then it bleeds[4].

The differential diagnosis [2] includes condyloma accuminata, herpes simplex, syringomas, basal cell carcinoma and immunodepression, cryptococcosis, and histoplasmosis.

The treatment is useful to prevent the transmission to the partner, autoinoculation, and for the sake of the quality of life[3]. Treatment in children: no treatment [1]. In women, it is related to aesthetics. If needed, destruction of the lesion: curettage, incision and squeezing the center of the Molluscum body [2] or pricking with a needle and squeezing[4]. Electrocoagulation or cryotherapy (local anesthetic infiltration). Also, podophyllin cream o imiquimod [1][2], potassium hydroxide, trichloroacetic acid, topical cidofovir, oral cimetidine [3], or intralesional interferon in HIV-positive individuals[4].

In this paper, 10 case studies in a 10-year period will be introduced. The clinical characteristics will be analyzed, and the most common images will be shown.

Methods

At the author's gynecologist office, in *Centro de Especialidades de Monteolivete*, Valencia (Spain), the cases of Molluscum Contagiosum (MC) from the past 10 years (2008-2017) were studied. 10 cases of MC out of 51,342 patients' consultations were found, which represents 0.01% of the cases.

The following was studied: age, parity, medical history (medical and surgical), vaginocervical cytology; the human

papillomavirus (HPV) was analyzed, as well as the lesions (with iconographic representation in certain cases), and the treatment. Quantitative data (age and parity) is featured as range, average, and standard deviation. Qualitative data is featured in percentages. The features of the series can be found in Table I.

Table I. Molluscum Contagiosum Case Studies

CASE	AGE	PARITY	MEDICAL HISTORY	LESIONS	CITOLOGY	HPV	TREATMENT
1	49	1,1,0	Appendectomy. Multiple sclerosis.	3, left buttock	Trichomonas ASCUS	HR (+) LR, negative	NO
2	34	0,0,0	Condylomas. Bronchial asthma.	Vulva	BV LSIL	16(+) 18, negative Others (+)	NO
3	27	0,0,0	NO	Perineum Vulva	Negative	Negative	NO
4	47	2,2,0	2 cesarean deliveries.	Inner side of the both tight	BV	Negative	Imiquimod
5	46	2,2,0	2 cesarean deliveries. Total thyroidectomy. Hypothyroidism.	2, suprapubics 1, inner side right thigh	BV	Negative	Imiquimod
6	28	0,0,0	Child uretral reflux.	Perineum	Negative	Negative	Imiquimod
7	43	1,1,0	Bronchial asthma.	Several Right side	LSIL Negative	16, negative 18, negative others (+)	Imiquimod
8	41	2,1,1	NO	Vulva	Negative	Negative	Imiquimod
9	40	0,0,0	Primary infertility. Laparoscopy. Bilateral tubal obstruction.	Vulva	Negative	Negative	NO
10	25	0,0,0,	NO	Right buttock Healing	Negative	Negative	NO

Parity = pregnancies, deliveries, abortions

BV, bacterial vaginosis

ASCUS, atypical squamous cells of undetermined significance

LSIL, low-grade squamous intraepithelial lesion

HR, high risk

LR, low risk

Results

Age ranging between 25 and 49 years, average 38±8.88. Parity ranging between 0 and 2, average 0.7±0.82, considering 5 cases were nulliparous (50%). One of them, suffering from primary infertility due to bilateral tubal obstruction (case 9). In the series, there are no menopausal women. 2 of the women had had 2 cesarean deliveries. There is only one abortion case, which was due to a voluntary interruption of pregnancy (VIP).

Among the medical histories, there is a patient (case 1) suffering from multiple sclerosis, 2 cases suffering from bronchial asthma (cases 2 and 7), a total thyroidectomy due to goiter, resulting in hypothyroidism (case 5). Case 2 had condylomas.

Lesions were diverse and affected the vulva, perineum, buttocks, inner side of the thighs, mound of Venus, and the suprapubic region (Images 1-5).

The typical lesion is a papule with an umbilical core, as it can be perceived in Image 1, case 4. The patient also had lesions on the inner side of the thighs. Image 2 shows how it affects the mound of Venus and the suprapubic region in case 5. Image 3, case 6, shows how the inner side of the right buttock is affected. Image 4, case 8, shows how the vulva and perineum are affected. Image 5, case 10, shows how the right buttock is affected, lesions in the healing phase, already with a scab.

In the vaginocervical cytology, bacterial vaginosis (BV) was found in 3 of the cases (cases 2, 4, and 5); trichomonas and ASCUS (atypical squamous cells of undetermined significance) were detected in case 1; and LSIL (low-grade squamous intraepithelial lesion) was identified in cases 2 and 7 (in this 2nd case, the medical examination after 3 months was negative).

The HPV analysis was positive for the virus at HR (high risk) in case 1 (applying the type 2 in situ hybridization technique in 2010) and was also positive for types 16 and others (case 2), and for others (case 7), applying the polymerase chain reaction technique (PCR) in 2013 and 2016, respectively. The test was negative in the remaining cases.

There is a correlation between abnormal cytology and HPV (+) in the 3 affected cases (cases 1, 2, and 7).

Regarding the treatment, 5 of the cases had none, and lesions disappeared before 1 year, 7 months on average. The remaining 5 cases were treated with imiquimod, applying the cream directly to the lesions nightly, 5 days a week, for 4 weeks. If they did not heal, the treatment was applied again for 4 months. After 5 months on average, lesions had been resolved.

Discussion

The series of 10 cases in a 10-year period accounts for 0.01% out of 51,342 consultations. In our field, this would be considered uncommon. Compared to genital herpes, we had 53 cases during the same period, which accounts for 0.10%.

In adult young women, typical lesions were found in the vulva, perineum, buttocks, thighs, and the suprapubic region, as shown in the images. There can be atypical locations such as the areola and the nipple [5]. In order to prevent contagion, swimming pools, saunas, and baths should be avoided, and a condom during sexual intercourse should be used [6].

There are geographic differences in the incidence of the type of MC virus. A Japanese study[7] with 171 patients: 131 children aged 0-15 years, and 40 adults - 16 men aged 22-75 years, and 24 women, aged 18-58 years - noted that MCV I was found in children (98%) and in adult women (92%). Conversely, MCV II was found in adult men (44%) and with HIV (+) (75%). Worldwide, MCV I can be found, apart from in Japan, in Europe and Australia.

If there is a low prevalence of STD (sexually transmitted disease), the asymptomatic woman can be exempted from a vaginal examination with a speculum, and an important diagnosis would not be missed [8]. However, this should not be done unless previous examinations have been done or there is a high risk of STD. Nonetheless, this would not have an impact on MC since, when checking for lesions, the diagnosis is clinical.

With MC in the genital or perigenital regions, a screening of other STDs must be performed[9]. Other STDs were found in 158 men suffering from MC, 30.4%. In 78 women, STDs were found in 32.1% of them. Their sexual partners should also undergo screening since STDs were found in 14 out of 25 of the cases. Chlamydia must be checked for, and PID, pelvic inflammatory disease, must be ruled out.

In this study, a correlation between an abnormal cytology and HPV (+) was found in 3 cases. These findings led to the need for carrying out screenings for other STDs, as explained in [9].

Regarding the treatment, in primary healthcare, a minor surgery can be performed[10]. It is a saving for the healthcare system since it is more convenient for the patient, the treatment is conducted in a short period of time, there is no need to go to the hospital, and there is a reinforcement of the doctor-patient relationship. The treatment for MC refers to cryotherapy or curettage. However, in genital lesions, podofilox or imiquimod can also be prescribed.

Five of the studied cases have not received any treatment, and the remaining five have been treated with imiquimod. Lesions disappeared within 7 months and 5 months, on average, respectively. The first case represents a risk of transmission for the sexual partner. The second one could lead to discomfort due to the irritation of the healthy skin derived from the treatment. If there is inflammation, the lesion enters the scab and resolving phases, as shown in image 5.

Figures

The figures are readily available within the supplementary data section and can be obtained through the following links for download:

- Image 1: here
- Image 2: here
- Image 3: here

- Image 4: here
- Image 5: here

Legend

- **Image 1:** CASE 4.
  Lesions in the inner side of both thighs.
  Closer view of the typical lesion.
  Papule with an umbilical core.
- **Image 2:** CASE 5. Condition of the mounts of Venus and the suprapubic region.
- **Image 3:** CASE 6. Condition of the right inner buttock.
- **Image 4:** CASE 8. Condition in vulva and perineum.
- **Image 5:** CASE 10. Condition in right buttock, healing.

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