

PERIANAL BOWEN DISEASE: AN INTEGRATIVE REVIEW

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Abstract: Bowen's disease can occur in different parts of the body, such as the head, hands and perianal region. Its morphology is that of an epithelial lesion with a dry appearance, irregular edges, red and scaly. When there are symptoms, it can present painful nodules, hemorrhage and eczema. It is predominantly due to infection with the human papillomavirus HPV types 16 and 6. These are most commonly responsible for persistent infection in the anogenital area, resulting in squamous cell carcinoma. The aim of the present work is to identify the most accurate diagnostic and treatment methods for perianal Bowen's disease. This is an integrative literature review, using 10 articles carefully selected from electronic databases: Scielo; Medline and Lilacs, complete original articles published and indexed in national and international journals in the languages: Portuguese, English and Spanish relevant to the subject studied, between January 2012 and January 2022. As a result, enabling the understanding that, in addition to the biopsy, which is the gold standard for the diagnosis of Bowen's disease, anal colposcopy and immunohistochemical examination can be excellent complementary methods. When it comes to treatment, excision is effective in reducing the recurrence of lesions, and photodynamic therapy presents recurrence in smaller foci. The highlighted information can conclude that there are current complementary methods for the diagnosis of Bowen's disease, and the importance of an individualized treatment, taking into consideration, the particularities of each patient.

Keywords: Bowen's Disease. Human papillomavirus. anogenital carcinoma.

INTRODUCTION

Bowen's disease is a precancerous dematosis, characterized by being a squamous intraepithelial lesion, with slow growth, usually asymptomatic, appearance of a nummular plaque with a dry, hyperkeratotic region, presenting irregular edges and delimited margins (MARGENTHALER et al., 2004, MOHANDAS et al., 2020).

The etiological factor goes through several aspects, such as advanced age, immunosuppressed patients (HIV), neoplastic agents linked to lifestyle and prolonged exposure to ultraviolet rays. However, it is more frequently linked to prolonged human papillomavirus (HPV) infection (NETO et al., 2021).

Lesions can manifest in various parts of the body, the anal region being reported for the first time in 1936, related to the aggravation of inflammatory diseases such as Croh's disease, ulcerative colitis and commonplace in cases of rectal cancer. Its diagnosis is a challenge not only for the population, but for dermatologists and proctologists, since its lesions can be confused with other previously described pathologies (SARMIENTO et al., 1997; COX et al., 2006).

Due to the incidence of perianal Bowen's disease and little knowledge about it, the present work aims to gather more relevant scientific findings about this disease, its installation in the perianal region and the

impact it causes on health, generating a compilation of information that will help both health professionals and the population to deal better with this pathology.

OBJECTIVE

Identify the diagnostic workup of perianal Bowen's disease, in addition to recognizing the different treatments and therapeutic approaches used in perianal Bowen's disease.

METHODOLOGY

The present work is an integrative literature review, which sought to address the content of theoretical and empirical literature. This method is widely used to improve clinical practice, analyzing relevant issues and reducing the high volume of scientific knowledge, allowing the subject in question to become instructive (SOUZA et al 2010; POLIT, BECK 2006).

The search was performed through the following online databases: Medical Literature Analysis and Retrieval System (Medline); Latin American and Caribbean Literature in Health Sciences (Lilacs) and Scientific Electronic Library e(SciELO). Making use of the descriptors: Bowen's disease, human papillomavirus and anogenital carcinoma. Using the Boolean operator AND, which served as a guideline for the selection of articles.

Descriptors	Total publications	Filtered publications	After reading the title	After reading the summary
bowen's disease	2.259	72	11	4
Human Papillomavirus	51.049	403	28	3
anogenital carcinoma	2.002	64	7	3
bowen's disease AND human papillomavirus	290	2	0	0
papillomavirus AND Anogenital Carcinoma	1.005	25	3	0
bowen's disease AND anogenital carcinoma	98	0	0	0
bowen's disease AND Human Papillomavirus AND anogenital carcinoma	47	0	0	0

Table 1: Search in Medline, Lilacs and SciELO online databases.

Source: the author

TITLE	AUTHORS	YEAR	DESIGN	OUTCOME
Long-term recurrence of non-melanoma skin cancer after topical photodynamic therapy treatment with methylaminolevulinate in a dermatology department	Cabete, J. and other authors	2014	Retrospective cohort study	Although there is no gold standard treatment for squamous cell carcinoma, the suggestion of photodynamic therapy with methylaminolevulinate is effective for Bowen's disease, since recurrence occurs in smaller foci. It is important to consider the characteristics of each patient.
Local control of perianal human papillomavirus infection after eradication of condyloma acuminata	Manziona, T.S. and other authors	2014	Retrospective Study	It was not possible to locally control the infection after eradication of the clinical lesions with anal brush cytology and anal colposcopy. Periodic control is required.
Grade 1 and 2 cervical squamous intraepithelial lesions: value of an alternative morphological classification and p16 immunohistochemical study in predicting clinical outcome	Salim, R.C. and other authors	2017	Retrospective longitudinal study	The use of the immunohistochemical method with p 16 as a complementary test for the morphological classification and histopathological diagnosis of cervical intraepithelial neoplasia has shown promise.
Surveillance high-resolution anoscopy after anal squamous cell carcinoma: detection and treatment of high-grade squamous intraepithelial lesions may influence local recurrence	Capello, C. M. D. and other authors	2019	Randomized controlled trial	With the surveillance of the use of high-resolution anoscopy, it was possible to result in early diagnosis of local recurrence and lower rates. Thus, proposing that this method be adopted for better prognosis.
Comparison of the recurrence rate of 3 treatment modalities for Bowen's disease in an aging city A retrospective multivariate analysis	Mo, Y.W. and other authors	2020	Retrospective Study	Cryotherapy had higher recurrence rates than seen in previous studies, which can be explained by the lack of a rigorous protocol. The same was seen by the laser ablation method. However, the excision proved to be effective, because it is more invasive, it took longer for cases of recurrence to appear.
Evidence of passive smoking as a risk factor for high-grade squamous intraepithelial lesion: a case-control study.	Du, X. and other authors	2020	Retrospective observational study	The study proved its hypothesis, and when associated with HPV, there was an even greater increase in the disease. Adolescents who are exposed for long periods (20 years) to passive smoking also have an increased risk of squamous intraepithelial lesions.
Efficacy of Quadrivalent HPV Vaccine in Preventing Anal \geq HSILs in a Spanish population of HIV+ MSM aged > 26 years	Tenório, C. H. and other authors	2021	Randomized, double-blind study	The study obtained a decrease in intraepithelial lesions and anogenital lesions in 48 months, although there were no significant differences between the placebo and the vaccine group. In addition, it was possible to observe that there was an increase in total antibodies against genotype 6. Which is related to long-term immunity in seropositive individuals.
Expression and significance of the mammalian target of rapamycin in cutaneous squamous cell carcinoma and precancerous lesions	Xu, G. and other authors	2021	Randomized controlled trial	Through immunohistochemical examination, it suggests that mTOR is related to the occurrence of squamous cell carcinomas. May act as an index that reflects the status of proliferation of squamous cell carcinoma.
Perilesional sun damage as a diagnostic clue for pigmented actinic keratosis and Bowen's disease	Sinz, P.W. and other authors	2021	Observational Study	When analyzing perilesional solar damage in dermoscopic images using the explainable artificial intelligence method and the effectiveness of an online tutorial, it can be seen that there was an improvement in diagnostic accuracy, serving as a clue for additional diagnosis. Useful information for tele dermatology.
Detection of human papillomavirus in oral mucosa in men with anogenital warts	Medina, M.G. and other authors	2021	Cross-sectional Observational Study	When studying oral and anogenital samples through PCR, it was possible to notice that in oral samples type 16 was prevalent, while in anogenital samples type 6 was more frequent. It is essential for epidemiology to know the HPV genotypes that infect and can cause anogenital lesions so that programs can be established to prevent transmission of the virus.

Table 2 - Analysis of the articles for the construction of the integrative review.

Source: the author.

The search for scientific articles represented by the table above yielded 2,259 publications for the descriptor “Bowen’s disease”, 51,049 for the descriptor “Human papillomavirus” and 2,002 for the descriptor “Anogenital carcinoma”. of 1,440 totaling 56,750 publications.

The process to select the articles that were part of this work was based on the following inclusion criteria: original articles, relevant to the topic studied, complete published and indexed in the databases suggested in this research, in the period between January 2012 and January 2022, covering a period of 10 years; publications in national and international journals in Portuguese, English and Spanish.

Surveys in the form of newspaper news, letters, blogs or any unofficial electronic means that lack credibility were excluded from the work. Aiming to produce a work based on scientifically proven issues. Articles whose objectives or objects studied are not related to the theme of the study in question; studies published as theses, dissertations and course conclusion works; communications, literature reviews and case studies; works that were repeated in the databases; works published outside the time frame stipulated for this research.

Finally, 72 publications were filtered for the descriptor “Bowen’s disease”, 403 for “Human Papillomavirus” and 64 for the descriptor “anogenital carcinoma”. Regarding the combination of descriptors, 27 publications were obtained after filtering.

In the next step to select the articles, the title was read and in the next step, the abstracts were read, resulting in 4 publications using the descriptor “Bowen’s disease”, 3 of the “human papillomavirus”, 3 of the descriptor “anogenital carcinoma”. Subsequently, a qualitative analysis and comparison of results was performed.

RESULTS

Ten articles were selected for final analysis. Seeking to answer the questions considered as the guiding principle for writing this review: What is Bowen’s disease in the perianal region? How to identify and diagnose it assertively? Which treatment serves to prevent relapses, thus being more effective? It was possible to obtain such responses described in the table below.

DISCUSSION

ROLE OF HPV IN INTRAEPITHELIAL LESIONS

HPV infection causes changes in intermediate cells, with nuclear atypia. This can result in tissue changes and installation of low or high grade squamous intraepithelial lesions (SIL). It has more than 200 strains described to date, among them 40 with great potential to infect the genital region, of which 12 types are oncogenic. The strains with the highest risk are the types 16,18,31,33,35,39,45,46,51,52,56,58,59 and 68. The types with the lowest oncogenic risk prevail in the strains 6,11, 42, 43 and 44 (ARALDI, 2017).

Corroborating the findings in selected articles by Medina et al 2021, where it was possible to observe that genotypes 16 and 6 are more frequent in Argentine men under 30 years old who had anogenital warts. This data is of great importance for epidemiology, enabling preventive action against strains of this virus.

The vaccine system is recommended by the World Health Organization (WHO) and adopted in 120 countries. Vaccines, when applied within the correct period, can reduce the risk of contamination by HPV types 16 and 18 by more than 80%, respectively. In cases of patients with immunodeficiency and over 15 years old, 3 doses are applied, respecting the cycle of 0, 1-2, and 6 months (WHO, 2017; NEWMAN et al., 2018).

The selected article, by Tenório et al 2021, analyzed and proved that the application of the quadrivalent vaccine in seropositive individuals aged over 26 years, despite not reducing anogenital intraepithelial lesions, is capable of increasing antibodies against genotype 6, correlating with the long-term immunity

In addition to HPV infection, there are other risk factors for the emergence of intraepithelial lesions and perianal Bowen disease, including advanced age, genetic load, lupus, inflammatory dermatoses, exposure to cancer agents (BENMOUSLY et al, 2013).

It was demonstrated in the article by Du et al 2020, that exposure to passive smoking since adolescence can increase the risks for the development of such a pathology, even more so when associated with HPV infection.

IDENTIFYING PERIANAL BOWEN'S DISEASE

Dermatology plays a fundamental role in the treatment of Bowen's disease, from the investigation of the initial hypothesis, confirmation of the diagnosis, to the treatment of the pathology. Through histopathology it is possible to identify irregular patterns such as brown areas without delimited structure, in addition to superficial scales (COX et al., 2006).

Although visual clinical investigation of the lesion is generally adequate to conclude a provisional diagnosis when talking to a dermatologist who has experience in the matter. The subjective and information of lesion thickness, depth of infiltration limit of the lesion and internal characteristics are impossible to be acquired by visual observation (BHATT et al., 2017).

The dermoscopic characteristics of Bowen's disease show great diversity, which can also be observed in other dermal diseases.

Although biopsy is often considered

the gold standard for diagnosing Bowen's disease, multiple biopsies are required due to the possible sampling error that pathologic specimens may remain undetected with an inconclusive diagnosis.

Science is constantly updating, and there are already studies that investigate other additional and assertive methods to assess and identify intraepithelial lesions. That said, the articles highlighted and analyzed for the construction of this integrative review, evaluated the immunohistochemical test with p16, which proved to be efficient as a complementary method for the diagnosis of cervical lesions, suggesting further more detailed research on the possible benefits for perianal Bowen disease (XU et al., 2021; SALIM et al., 2017).

Capello et al., demonstrated that high-resolution anoscopy or anal coloscopy, which is a form of early diagnosis that predicts the recurrence of anogenital lesions and Bowen's disease, prevents the evolution of this pathology and influences lower rates of cancers in the anal region. Suggesting the choice of this method to improve the prognosis whenever possible.

Using technology as a support associated with the clinical training of teams, so that it adds up to a better diagnosis of intraepithelial lesions and benefits tele dermatology. When analyzing how the online tutorial, combined with dermoscopic image exams using the artificial intelligence method, the diagnostic accuracy was observed in the work by Sinz et al 2021. Establishing effectiveness of advanced methods to deal with this pathology.

TREATMENT OF PERIANAL BOWEN'S DISEASE

The treatment depends on the appearance, number of lesions and age of the patient. Taking into consideration, individual factors and preferably using the least invasive

procedure. Some of the most used treatments are chemotherapy, resection, photodynamic therapy, radiotherapy and curettage. Resection surgery with wide margins has been proving to be a method that reduces the chance of disease recurrence in recent years (DARRAGH et al., 2013; SOUZA et al., 2022).

In the article produced by Mo et al 2020, he supported the applicability of excision, which despite being an invasive method, is the best option with attenuation of recurrence of cases, when compared to cryotherapy and laser ablation.

These last two methods present greater recurrence and, according to the study, have an effect only in the short term.

Photodynamic therapy with methylaminolevulinate is also effective in treating Bowen's disease as recurrence occurs in smaller foci. It is noteworthy that there is no gold standard for the treatment of Bowen's disease, so the importance of choosing the method to consider the characteristics of each patient is essential (CABETE et al., 2014).

CONCLUSION

After analyzing the selected articles, it was concluded that, as an etiology, there are several factors that influence the emergence of perianal Bowen disease, among which the most frequent is infection through HPV genotypes 16 and 6. In addition to exposure to carcinogens such as tobacco. The provisional diagnosis can be made through clinical examination, but it is only confirmed with biopsy, and new studies bring other complementary methods to perform the same, such as: immunohistochemical examination and anal colposcopy. The treatment must take into consideration, the particularities of each patient. Having better results with photodynamic therapy and excision protocols.

The information highlighted in the present work will serve as a guide for new protocols and scientific works in relation to the more precise handling of patients with perianal Bowen's disease, with the purpose of improving health professionals in subjects that are still little studied. Suggesting confirmations of hypotheses generated after exposure of the mentioned methods.

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