



Adolescent behavioral profile with acne vulgaris: case reports

Rosiellem Ferreira Carvalho^a, Daniela Silva Sartori Delmondes^a, Shirley Pereira Prado^a, Pablo Henrique Delmondes^a

^a Grupo de Pesquisa em Ciências Estéticas e Cosméticas das Faculdades Unidas do Vale do Araguaia, UNIVAR, Barra do Garças, Mato Grosso, Brasil.

pablohdelmondes@hotmail.com

Abstract

Acne is an infectious and non-contagious inflammatory pathology that affects adolescents worldwide. Acne vulgaris, specifically, occurs by genetic predisposition and is dependent on sex hormones and causes severe and painful lesions on the skin, which can cause discomfort and embarrassment on the part of adolescents. Although there are a number of aesthetic procedures that aid in the treatment of acnes, the lack of knowledge among adolescents is still widespread, which makes relevant studies relevant to the subject. Thus, the objective of this study was to report three distinct cases of adolescents with acne vulgaris. Studies have shown that knowledge about the aesthetic procedures that help the treatment of acnes is low on the part of the interviewees, besides having reported that the acnes cause a lot of discomfort because of the pain, besides affecting their social life.

Keywords: acne vulgaris, treatment, adolescent

Introduction

Acne is one of the most common skin diseases. This disease is not contagious. It is a chronic and inflammatory disease of the pilosebaceous follicle, consisting of: large and multilobulated sebaceous gland, and the long follicular canal covered by stratified squamous epithelium. It is caused by increased colonization of a bacterium *Propionibacterium acnes* and periglandular dermal inflammation [1].

Its physiopathology is due to four factors: obstruction of the hair follicle, secondary to abnormal desquamation of follicular keratinocytes; increased sebaceous production; proliferation of anaerobic bacteria *Propionibacterium acnes*; triggering of immune and inflammatory responses induced by the bacterium [2].

Acne vulgaris is a disease of genetic predisposition whose manifestations depend on the presence of the sexual hormones, and can be aggravated by some factors like inadequate feeding, stress and medicines. Lesions usually begin at puberty, affecting approximately 80% of adolescents. The onset of lesions is early (11 years for girls and 12 for boys), with a higher prevalence for men resulting from androgenic influence. There are mainly areas on the face and trunk with large amounts of sebaceous glands [3].

The clinical picture is established according to the type of lesion, classified in several degrees and some people may develop more severe manifestations of the dysfunction, with scars, spots and changes in the surface of the skin [1].

Acne is classified as non-inflammatory acne (acne comedoniana or acne grade 1) when it has only blackheads (grade I) and acne inflammatory (acne papulopustulosa or acne grade II, acne nodule-abscess or acne grade III, acne conglobata or acne grade IV, and fulminant acne) [4].

There are several types of treatment for acne and, although with different modes of action, target the pathophysiological process of the disease. They are based not only on the treatment of existing lesions but also on the prevention of new lesions, scarring, introduction of new daily habits and mitigation of psychological and emotional sequelae that may result from the disease. The treatment consists essentially in controlling the etiological factors that contribute to the development of the disease: hyperkeratinization, hypersborreia, bacterial proliferation and associated inflammatory reactions [5].

Among the techniques for its treatment include the use of resources such as: skin cleansing, chemical peels, cosmetics and antiseptic and anti-inflammatory drugs, as well as the use of aesthetic procedures to improve the appearance or even reduce the expressions of the acne lesions [6].

Individuals who have acne, especially adolescents, often coexist with social inhibition, because lesions and scars are aspects that reflect on self-image and consequently on self-esteem, thus stimulating the search for treatment, including aesthetics [7].

In a study of 1560 adolescents aged 11 to 19 years, where 1531 questionnaires were completed, there was a significant impact on the quality of life of patients with acne associated with their severity. It was also found

that in patients with moderate / severe acne the pathology has a greater influence at the psychosocial and emotional level and that the symptoms and treatment of the disease are factors that also influence their quality of life [8].

Despite the high prevalence of acne and its enormous impact on the psychic and emotional health of individuals, there is still a marked lack of knowledge about the pathology. Studies conducted in academic and community settings have revealed widespread ignorance about acne, its etiopathogenesis, development and therapy associated with unrealistic expectations [9]. Due to the psychic and emotional impact that acne can cause, it is extremely relevant to address the main aspects of the pathology reported by adolescents, so that strategies are created or improved within the aesthetic that helps in the future treatments of acne vulgaris.

Thus, the objective of this study was to report three distinct cases of adolescents with acne vulgaris, in order to verify the level of knowledge and the relation of the pathology with their social life.

Materials and Methods

Three adolescents with acne vulgaris were interviewed. The consent form was signed by the heads of adolescents. The aim of this article was to understand the interviewees' knowledge of aesthetic treatments, daily care, how much acne affects the aesthetic and psychological satisfaction of adolescents. The participants reside in the municipality of Barra do Garças - MT with population of 58,974 inhabitants, whose environment is hot and sunny which can cause the appearance of spots after the acne scar.

The interviewees were L.M.S., 15 years old, female; A.C.C.A., 16 years old, female; and A.F.C., 15 years old, male. The criterion of choice was due to the different aesthetic profiles of acnes.

Case Reports and Discussion

Characteristics of Interviewees

According to the clinical picture of acne lesions acne is known in five grades: Grade 0 (pre-acne / follicular hyperkeratosis); Grade I (acne with presence of comedones / open and closed comedones); Grade II (inflammatory acne papulopustulosa and superficial pustules); Grade III (acne nodules - absent more solid lesions more luber); and Grade IV (acne conglobata, in which there is formation of abscesses and fistulas, and scars) [10, 11].

L.M.S., 15 years old, female, presents grade IV acne vulgaris, as shown in **Figure 1**. It is observed that acnes appear on the face, shoulders and cervix. Grade IV acne vulgaris presents conglobata, formation of abscesses and fistulas.



Figure 1. Interviewed with grade IV acne vulgaris

A.F.C., 15 years old, male, has vulgar grade III acne, as shown in **Figure 2**. It is observed that acne appears only on the face. Grade III acne vulgaris occurs in the form of nodules, abscesses, and more exuberant solid lesions.



Figure 2. Interviewed with grade III acne vulgaris

The interviewee A.C.C.A., 16 years old, female, did not authorize the disclosure of images.

Reports on the Possible Accomplishment of Aesthetic Procedures to Fight Acne

L.M.S., 15 years old, female, reported having knowledge and had already performed aesthetic treatments aimed at acnes reduction, while A.C.C.A., 16 years old, female and A.F.C., 15 years old, male reported not knowing the procedures and never performed any treatment, which is worrying since there are excellent aesthetic treatments that aim at improving the skin and reducing acne such as facial skin cleansing, chemical peeling and others.

Skin cleansing is a method of extracting comedones, acne and dead cells among other four skin dirt, to leave you looking healthy. The procedure should be performed by trained professionals and the exact form of performing varies according to each cutaneous biotype [12].

Chemical peeling, another very convenient method such as acnes treatment, is a tactic that employs chemical agents with local application for skin regeneration. It can overlap in the face with lesions caused by acne, melasma, warts, and so on [13]. In the same way known as chemosensory or dermopeeling, the chemical peeling constitutes in the execution of exfoliating agents in the skin, causing in the demolition of parts of the epidermis

or dermis, proceeding with renewal of the damaged tissues [19].

The aesthetic interventions for acne are greatly considerable and can be conceptualized as optimal alternatives to the problem, since it is able to soften the lesions and prevent the appearance of scars. Different types of treatment for acne are found and, although with several modes of action, they target the pathophysiological process of pathology. They consist not only in the treatment of lesions already present, but, however, in the precaution of the production of new lesions, reduction of scars, inclusion of new daily habits and attenuation of psychological and emotional sequelae that can come from the pathology [5].

Generally, the treatment of acne follows some methods like rectify the alteration of follicular keratinization, ameliorate the production of the sebaceous glands, reduce bacteria and generate an anti-inflammatory effect. Cleansing of the skin is always effective, if not excessive, it helps to alleviate the seborrhea that frequently accompanies the picture [14].

Reports on the Use of Cosmetics or Personal Care Products to Control Acne Proliferation

L.M.S., 15 years old, female, and A.C.C.A., 16 years old, female and A.F.C., 15 years old, male, claimed not to use any cosmetics or personal hygiene products in order to control proliferation or combat acnes. The result shows that despite the bother that acnes cause to their portares, few measures are taken. The use of cosmetics and personal care products can be a good alternative to avoid the proliferation of acnes and also as a coadjuvant in the treatment.

The use of soaps mainly astringents, cosmetics for acne can offer considerable results.

The cosmetics that are on the market, present in their formulation a set of substances with different properties, called raw materials, having their natural or synthetic origin. In this way, a cosmetic product consists mainly of: vehicle or base agent, active ingredients, dyes, pigments and fragrance [20].

The active principles are chemical or biological (synthetic or natural) substances that act on the tissue cells. At the same time that the vehicle is in charge of the transport, the cosmetic form and in order to guarantee excellent penetration in the skin. The PA in a characterization consists of disposing cosmetic results and presenting anti-inflammatory, antiseptic, healing, moisturizing and so on properties [21].

In general, the performance of the actives used in cosmetics for acne skin are regulators of oiliness, keratolytics, epidermal renovators, antiseptics, anti-inflammatory, healing and soothing agents [21].

It is extremely important to use astringent cosmetics, specific for acne skin. Failure to use correct products can further aggravate acne.

Reports Regarding the Intake of Some Foods That May Cause or Aggravate Acnes

Respondents were approached if they agreed that eating certain foods (eg, chocolate, fried foods, sugar-rich foods) can cause an increase in acne. Everyone said yes.

Research intends to explain the correlation of nutrition with the appearance of acne and some significant

results demonstrate the association, so that the consumption of foods with high glycemic index, which contributes to hyperkeratinization, through hyperinsulinemia [14].

Foods with fatty acids present the possibility of benefiting the increase of calcium in the skin ducts, which causes the skin lesion to worsen [15].

It has been deeply verified that the public who did not ingest or who moderately ingested a portion of industrialized foods, milk and by-products, saccharias and lipids are those that indicate low rate of occurrence of acne, as well as the public that has as sustenance of their nutrition the natural foods, integral and fish [16].

The fat promoted by the human body is made up of most triglycerides and the bacteria support triglycerides, which are fatty acids that are absorbed by the skin, which worsens the oiliness of the skin, so the triglycerides need to be avoided [17].

In this way we observe how much to the feeding can influence in the appearance of the acne. As in the same way there are several factors (eg, hormonal, genetic, use of inappropriate cosmetics, poor diet) that can worsen or even cause skin damage.

Reports on Discomfort and Dissatisfaction with Acnes

The following questioning to interviewees was whether they feel bothered by having acne. Everyone said yes, because it hurts and is aesthetically unpleasant.

Acne besides being one of the big problems in personal aesthetics, when it is in an inflammatory degree it can hurt and bother. The clinical picture of acne is designated by the appearance of blackheads that are separated into: microcomedones (initial injury of acne, which can not be seen), closed comedones or white clove (inflammatory acne lesion) and open comedones or black clove edges of black tint by the help of melanin, which to add has oxidation by immediate contact, usually does not ignite) [18].

When acne is found in grade II, there are inflammatory lesions, causing redness, pain, papules and pustules. And in grade III and grade IV there is presence of purulent nodules and cysts, which can cause a lot of pain and great discomfort.

Conclusions

The study of case reports showed that there is still a great taboo and doubts on the part of adolescents regarding the means of treatment. It was also observed that all the study's target adolescents feel uncomfortable with acnes due to pain and aesthetic discomfort.

Conflicts of Interest

The authors declare no conflict of interest

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