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Adapalene (0.3%)/benzoyl peroxide gel (2.5%) for adult female acne: a real-world case series from Latin America

Gel de adapaleno (0,3%)/peróxido de benzoíla (2,5%) para acne da mulher adulta: uma série de casos reais da América Latina

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Letter to the Editor

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To the Editor:

Adult female acne (AFA) is a common condition affecting women aged 25 years and older, with a chronic and relapsing course.[1] This multifactorial disorder is associated with hormonal imbalance (eg, polycystic ovary syndrome), psychological stress, genetics, and lifestyle factors, which collectively contribute to its complexity and challenging management.[1,2] The Latin American population has diverse characteristics, influenced by demographics, race/ethnicity, and exposome.[3] In Brazil, the population prevalence of AFA has been estimated at 41%.[4]

Controlled trials of AFA treatment are scarce, but the primary therapeutic options typically include topical retinoids, antimicrobial agents, combined oral contraceptive pills, and spironolactone.[5-9]

Early recognition and proper treatment of AFA are crucial to minimize complications such as scarring and hyperpigmentation as well as to reduce its impact on quality of life. Currently, the management of AFA must be tailored to individual characteristics, mitigating triggers and addressing key pathophysiologic mechanisms, including inflammation, comedogenesis, sebogenesis, and skin microbiome abnormalities.[2,9,10]

In this retrospective case series, we present six cases of AFA from 3 Latin American countries (Brazil, Colombia, and Argentina) treated with a combination of adapalene 0.3%/benzoyl peroxide 2.5% gel (A0.3/BPO2.5) and other therapies. The primary reason for choosing these cases was to reflect the diversity in disease severity and the different treatment combinations applicable in real-world practice. These were consecutive cases treated in the authors' practice between August and September 2023, and all patients provided written informed consent for the publication of their photographs and clinical data. The study was approved by the institutional ethics committee (approval number 7.082.589).

Patient characteristics, treatments, and outcomes are presented in table 1 and figure 1.

In the first case, pronounced inflammation marked by pustules and nodules required a regimen of oral antibiotics associated with spironolactone and topical A0.3/BPO2.5. After four months of treatment, only minor erythema and residual acne scars were observed.

The second case presented primarily with papules and comedones. The patient was treated with A0.3/BPO2.5 for three months, resulting in a substantial decrease in lesions, though some scarring remained.

In the third case, papules, pustules, and skin pigmentation were evident. Following three months of treatment with oral spironolactone and A0.3/BPO2.5, there was an almost complete elimination of lesions, total resolution of pigmentation, and an improvement in overall skin quality.

After six months of treatment with a cyproterone acetate combined oral contraceptive and A0.3/BPO2.5, the fourth case experienced complete clearance of acne lesions and a substantial improvement in overall skin quality.

In the fifth case, inflammatory papules, comedones, and nodules showed total reduction following six months of treatment with oral spironolactone and A0.3/BPO2.5.

In the last case, mild papular AFA was successfully treated with a combination of oral spironolactone and A0.3/BPO2.5, resulting in a complete clearance within three months.

The multifactorial nature of AFA requires an approach encompassing an assessment of hormonal imbalance alongside management of inflammation, sebogenesis, and comedogenesis. Beyond cleansers, moisturizers, and photoprotection, the association of oral and topical therapies is a common practice, depending on the clinical presentation of the lesions and individual patient characteristics.[2,5]

Table : Clinical-demographic characteristics and progression of the cases reported

Case	Age (years)	Phototype	Active interventions for acne	Predisposing factor	Previous IGA	Final IGA / time
1	34	III	Lymecycline 300 mg/d for 60 days, spironolactone 100 mg/d, adapalene 0.3% / benzoyl peroxide gel 2.5%	Progestin-based intrauterine device	4	1 / 4 months
2	25	II	Adapalene 0.3% / benzoyl peroxide gel 2.5%	Cessation of contraceptive pill	3	1 / 3 months
3	29	III	Spironolactone 50 mg/d, adapalene 0.3% / benzoyl peroxide gel 2.5%	PCOS and vitamin B12 supplementation	3	1 / 3 months
4	32	IV	Cyproterone acetate combined oral contraceptive, adapalene 0.3% / benzoyl peroxide gel 2.5%	PCOS	4	0 / 6 months
5	22	III	Spironolactone 100 mg/d, adapalene 0.3% / benzoyl peroxide gel 2.5%	None	3	0 / 6 months
6	31	I	Spironolactone 100 mg/d, adapalene 0.3% / benzoyl peroxide gel 2.5%	Family history of acne	2	0 / 3 months

IGA: Investigator's Global Assessment (for acne severity); PCOS: polycystic ovary syndrome

Figure 1: Clinical evolution of five cases of adult female acne. Case 1: pretreatment **A** - and after 4 months **B.** Case 2: pretreatment **C** - and after 3 months **D.** Case 3: pretreatment **E** - and after 3 months **F.** Case 4: pretreatment **G** - and after 6 months **H.** Case 5: pretreatment **I** and after 6 months **J.** Case 6: pretreatment **K** - and after 3 months **L**

Topical combination of A0.3/BPO2.5 offers a synergistic strategy for treating acne. The comedolytic effect of adapalene, coupled with the antimicrobial, anti-inflammatory, and sebum-control properties of benzoyl peroxide, leads to superior performance compared to the use of either agent in isolation. In addition, adapalene reduces inflammation, making this combination appropriate for addressing various factors involved in the pathogenesis of different types of acne and skin phototypes.[9,11] A0.3/BPO2.5 is a well-tolerated topical treatment; nevertheless, its use every other day and/or in combination with the prior application of non-comedogenic moisturizers are alternatives for sensitive skin.

Antiandrogens (eg, spironolactone) are usually prescribed for AFA, even in cases where hormonal workups are normal, leading to a reduction in sebogenesis and consequent improvement in acne lesions. Contraceptive pills containing progestins with antiandrogenic properties (eg, cyproterone) are both effective in treating acne and in preventing relapse following remission.[2] Spironolactone can be used alone or together with combined oral contraceptive pills or intrauterine devices to achieve a synergistic effect, or in situations where counterbalancing the effects of levonorgestrel present in hormonal intrauterine devices is required.[9,12,13]

Oral antibiotics, particularly tetracyclines, are recommended for moderate-to-severe inflammatory acne, typically for up to three months. Combining oral antibiotics with topical benzoyl peroxide minimizes the risk of inducing antimicrobial resistance.[14] Oral isotretinoin is reserved for refractory AFA; nevertheless, prescribing with caution and providing reassurance is essential for women of reproductive age.[15]

The present cases emphasize the need to customize treatment plans and consider factors such as patient preferences, lifestyle, side effects, and contraindications (such as pregnancy or hyperkalemia).

In conclusion, this case series highlights the efficacy and tolerability of a combination approach in the treatment of adult female acne in real-world settings. The tailored use of A0.3/BPO2.5 alongside antiandrogens, combined oral contraceptive pills, and short courses of antibiotics highlights the need for individualized strategies to match disease severity and patient characteristics. ●

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