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Letter

Unilateral acne: think about cell-phone acne

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To the Editor

Acne, an inflammatory condition affecting the pilosebaceous units, essentially manifests on the face with lesions typically distributed symmetrically. Unilateral acne is uncommon. We reported a case of acne that appeared exclusively on one side of the face in a patient who had prolonged contact with their mobile phone in the affected area.

Case Synopsis

A 25-year-old woman presented at the hospital with a unilateral facial eruption that appeared three weeks prior. She reported experiencing a similar episode in the same location 5 months prior to that, which was treated with doxycycline for three months but recurred one month after treatment cessation.

During adolescence, she had a few acne lesions on her face that resolved spontaneously with age. There was no history of menstrual irregularities or previous medication use. Additionally, she denied prolonged pressure or exposure to heat sources on the affected side.

Upon examination, multiple papules, pustules, and a few comedones were observed only on the right side of the cheek (**Figure 1A**). In contrast, the left cheek was free of any acneiform eruption (**Figure 1B**). Hormonal assessment and ovarian ultrasound findings were normal.

It was noted that two months before the initial episode, the patient changed her job and began using her mobile phone for prolonged periods, consistently on the same side as the affected area. A diagnosis of unilateral acne induced by cell phone use was suspected.

Treatment included doxycycline 100mg daily for three months and adapalene 0.3% gel. Additionally, limiting phone contact with the face and favoring the use of Bluetooth headphones were recommended. The patient showed significant improvement, with no recurrence noted after two years.

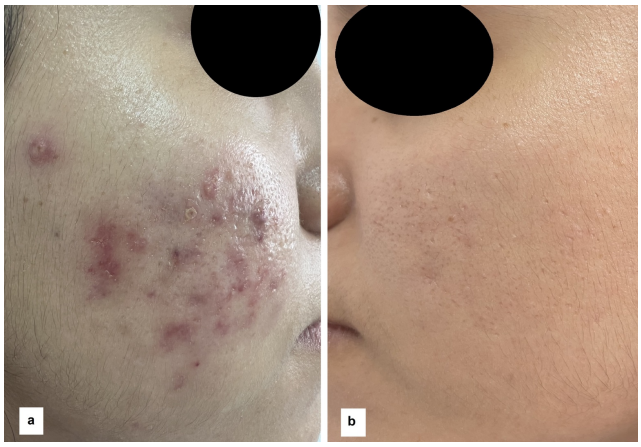


Figure 1. ***A)*** *Unilateral papules, pustules, and few comedones on only the right side of the cheek. This was the side that contacted the cell phone.* ***B)*** *Left cheek of our patient showing lack of acne.*

Case Discussion

Acne is an inflammatory disease of the pilosebaceous follicles, characterized by seborrhea, papules, pustules, and comedones, occurring on the face and on the back and upper chest. The pathogenesis of acne is multiple. It includes infundibular hyperkeratinization, increased sebum production, androgen activity, skin microbiome, inflammation, and environmental factors.[1] Facial acne presents most prominently on the cheeks, chin, and forehead. The distribution of lesions is often symmetrical; however, a unilateral predominance of facial acne was noted in our patient. It could be related to thermogenic aggravation from sources of heat such as sleeping on one side, sunbathing, using hot water for washing, and bathing.[2,3]

The unilateral predominance of facial acne induced by cell phone use was noted by M. Singh et al.[3] This can be attributed to several factors, including the buildup of sweat, sebum, dust. In addition, the heat generated by

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the cell phone, the friction, and the imbalance of the skin's bacterial floral may be factors.[3]

Unilateral acne is rare. A few cases are reported in the literature. They were most often associated with ipsilateral facial palsy.[4] The originality of our observation lies in the strictly unilateral occurrence of acne with the notion of prolonged mobile phone contact with the affected area. It was the only inducing factor found in our patient.

This notion of cell phone acne could be noted as a factor that can induce or aggravate acne lesions, which could be taken into consideration during treatment. Thus, advice such as regular cleaning of phones, reduction of contact with skin by rotating sides, use of hands-free devices, and reduction of call time could be given to patients who suffer from acne as an adjuvant measure to medical and dermo-cosmetic treatment.[3]

Conclusion

The data regarding the exacerbation of acne caused by prolonged cell phone usage is limited. However, given the ubiquitous use of mobile phones in society, consideration should be given to the impact of these exposures on acne pathogenesis.

Potential conflicts of interest

The authors declare no conflicts of interest.

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