



Isotretinoin: An Approach to Safer Administration

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Letter to the Editor

Isotretinoin (13-cis retinoic acid) is an isomer of Retinoic Acid (RA), a vitamin A metabolite. Although it is widely used and has proven to have unmatched efficacy for treating recalcitrant nodulocystic acne [1], it does not come without a price. Initially only indicated for severe nodular acne, it is now used much more commonly for moderate acne and acne that is unresponsive to other therapies. The usual side effects of this drug are similar in the picture to hypervitaminosis A [2]. A popular side effect is it being teratogenic as Stern RS et al. [3] pointed out in their study that about half of the pregnancies exposed to isotretinoin resulted in spontaneous abortion, while one out of four infants presented with cardiovascular and/or skeletal birth defects [3]. iPledge was put into effect in the USA in 2006 that closely monitors cases on isotretinoin under mandatory use of two effective contraceptive methods and two negative pregnancy tests before starting therapy [4].

Although following its launch on the market in 1982, there has been a high incidence of its use with depression, behavioral changes, psychoses, and suicidal ideation, but this association remains controversial [5]. However, in a recent study, Oliveria et al. [6] stated that patients with a family history of mental disorder are more vulnerable to depression or worsening already existing depressive symptoms [6]. Thus it is imperative to mandate mental health screening and identified patients be promptly referred to a mental health professional before and during the treatment to rule out any psychiatric comorbidity.

A thorough literature searches on PubMed revealed only a few studies covering this drug and its adverse effect profile in Pakistan despite its growing use in acne management. Considering the teratogenic nature of this drug and its suspected association with mental health issues in a subset of people, clinicians need to adopt the iPledge program strategy that ensures that women of childbearing age are not pregnant before the start and following one month after cessation of therapy. It is achieved by compulsory pregnancy testing and remaining strictly adherent to efficacious contraceptive methods during treatment. All this could get accomplished by appropriate counseling of patients regarding the adverse effects associated with the drug. Furthermore, to prevent any psychiatric symptoms in patients, clinicians should take advantage of their monthly appointments to also assess the mental health status of the patient receiving the drug.

References

1. Gollnick HP, Bettoli V, Lambert J, Araviiskaia E, Binic I, Dessinioti C, et al. A consensus-based practical and daily guide for the treatment of acne patients. *J Eur Acad Dermatol Venereol.* 2016;30(9):1480-90.
2. Rao PK, Bhat RM, Nandakishore B, Dandakeri S, Martis J, Kamath GH. Safety and efficacy of low-dose isotretinoin in the treatment of moderate to severe acne vulgaris. *Indian J Dermatol.* 2014;59(3):316.
3. Stern RS, Rosa F, Baum C. Isotretinoin and pregnancy. *J Am Acad Dermatol.* 1984;10(5 Pt 1):851-4.
4. Pinheiro SP, Kang EM, Kim CY, Governale LA, Zhou EH, Hammad TA. Concomitant use of isotretinoin and contraceptives before and after iPledge in the United States. *Pharmacoepidemiol Drug Saf.* 2013;22(12):1251-7.
5. Gnanaraj P, Karthikeyan S, Narasimhan M, Rajagopalan V. Decrease in "Hamilton rating scale for depression" following isotretinoin therapy in acne: an open-label prospective study. *Indian J Dermatol.* 2015;60(5):461-4.
6. Oliveira JM, Sobreira G, Velosa J, Telles Correia D, Filipe P. Association of isotretinoin with depression and suicide: a review of current literature. *J Cutan Med Surg.* 2018;22(1):58-64.

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