Critical Comment on “Vitamin D Level in Alopecia Areata”

Radha Saini, Kanica Kaushal

From the Centre for Nursing Research and Community Empowerment, Mother Mary’s Institute of Nursing, Hashiarpur, Punjab, 1Department of Community Medicine, School of Public Health, PGIMER, Chandigarh, India.
E-mail: radha_s26@yahoo.co.in

Indian J Dermatol 2018;63(1):82

Sir,

We appreciate the article “Vitamin D level in alopecia areata” published in Indian J Dermatol 2017;62:407-10 and for raising an important issue of highlighting the importance of Vitamin D in the treatment of patients with alopecia areata (AA). [1]

In the Material and Methods, the authors have mentioned that “This was a hospital-based cross-sectional study involving 50 patients of AA. The control group consisted of 35 age- and sex-matched individuals selected randomly from our OPD with no history of AA.”

However, we have a few concerns related to the methodology being adopted by the authors. First, the authors have clearly written that it is a cross-sectional study, but they have chosen cases and controls. The outline of methodology sounds confusing. The authors might be saying comparison group rather than age and sex-matched controls. How were the alopecia areata (AA) patients recruited in the study? Were all these patients, that is, cases recruited consecutively by the authors or were they taken randomly among many patients of AA visiting the outpatient department?

It is not clear in the study as to how the authors have calculated the sample size of 50 patients in case group and 35 in control group. In cross-sectional studies, the aim is to estimate the prevalence of unknown parameter(s) from the target population using a random sample. Hence, an adequate sample size is needed to estimate the population prevalence with good precision. [2] If the sample size is too small, the investigator may not be able to answer the study question. In this study, the sample size is 85. It is difficult to derive causal relationships from a cross-sectional analysis.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

References

1. Bhat YJ, Latif I, Malik R, Hassan I, Sheikh G, Lone KS, et al. Vitamin D level in alopecia areata. Indian J Dermatol 2017;62:407-10.
2. Pourhoseingholi MA, Vahedi M, Rahimzadeh M. Sample size calculation in medical studies. Gastroenterol Hepatol Bed Bench 2013;6:14-7.

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How to cite this article: Saini R, Kaushal K. Critical comment on “Vitamin D level in alopecia areata”. Indian J Dermatol 2018;63(1):XX.. Received: November, 2017. Accepted: November, 2017.

Authors’ Reply to Critical Comment on “Vitamin D Level in Alopecia Areata”

Yasmeen Jabeen Bhat, Inam Ul Haq1, Iffat Hassan, Peerzada Sajad, Insha Latif

From the Department of Dermatology, STD and Leprosy, 1Department of Preventive and social Medicine, Government Medical College, University of Kashmir, Srinagar, Jammu and Kashmir, India.
E-mail: yasmeenasif76@gmail.com

Indian J Dermatol 2018;63(1):82-3

Sir,

We thank the authors for showing keen interest in our article. [1] We would like to clear the doubts that have been raised regarding our article.

The concerns related to the methodology that have been raised are very relevant. The issue of study design is important. It depends on the outcome and the exposure variables in the study. In our study, alopecia areata (AA) is “the outcome of interest” and vitamin D level is “the exposure of interest”. Our research hypothesis was that “lower Vitamin D levels increase the risk of developing AA” and we have sampled on the basis of the outcome. We have studied exposures among AA patients (cases) and other patients (controls).

We have designed a case–control study since we have sampled on the basis of the outcome (AA). The cross-sectional study design has been erroneously mentioned due to the notion that the patients were...
Correspondence

not followed up. We acknowledge that the mistake has been pointed out.

Patients with AA who successively presented to our outpatient department were recruited. The exclusion criteria have been mentioned in the material and methods section.

Sample size is not an issue in this study. The study was designed to be done during the summer months. We recruited all AA patients during our study period (May to October). We did not calculate sample size for our study apriori. However, the study results reveal that our study had a good precision and a large effect size. The 95% confidence interval for the difference between Vitamin D levels among the AA patients versus the controls was −10.9 ng/ml—6.9 ng/ml in our study.[2]

The effect size, Cohen's d, in our study was 2.05, which is huge effect size.[3]

Further, a post hoc power analysis using G Power was done.[4]

The power in our study approaches 100% at α value = 0.05, df = 83, and effect size = 2.05.

Financial support and sponsorship
Nil.

Conflicts of interest
There are no conflicts of interest.

References
1. Bhat YJ, Latif I, Malik R, Hassan I, Sheikh G, Lone KS, et al. Vitamin D level in alopecia areata. Indian J Dermatol 2017;62:407-10.
2. Kirkwood BR, Sterne JA. Essential Medical Statistics. 2nd ed. Malden, MA: Blackwell Science; 2003. p. 501.
3. Sawilowsky SS. New effect size rules of thumb. J Mod Appl Stat Methods 2009;8:597-9.
4. Faul F, Erdfelder E, Lang A, Buchner A. G Power 3: A flexible statistical power analysis program for the social, behavioural, and biomedical sciences. Behaviour Research Methods 2007;39:175-91.

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Access this article online
Quick Response Code:
Website: www.e-ijd.org
DOI: 10.4103/ijd.IJD_15_18

How to cite this article: Bhat YJ, Haq IU, Hassan I, Sajad P, Latif I. Authors’ reply to critical comment on “Vitamin D level in alopecia areata.” Indian J Dermatol 2018;63:XX-XX.
Received: January, 2018. Accepted: January, 2018.

Generalised Lichenoid Drug Eruption Accompanied by Hand-foot Syndrome Due to Capecitabine
Funda Tamer, Mehmet Eren Yuksel
From the Department of Dermatology, Ufuk University School of Medicine, Ankara, ‘Department of General Surgery, Aksaray University School of Medicine, Aksaray, Turkey.
E-mail: fundatmr@yahoo.com

Indian J Dermatol 2018;63(1):83-4

Sir,
A 38-year-old female patient with breast cancer presented with itchy rash on the arms and feet and painful erythema on both palms and soles. She received oral capecitabine (Xeloda®) at a dose of 1250 mg/m² twice daily for 14 days in 21-day cycles during the past 10 weeks. The lesions had been present for the past 6 weeks, and they first appeared 4 weeks after the initiation of capecitabine treatment. The patient had no other concurrent medication. There was no history of medication for any other illness in the recent past. The physical examination revealed well-defined erythema, oedema, and desquamation on the palmoplantar region. The diagnosis of hand-foot syndrome was made based on clinical features. She also had erythematous papules and plaques predominantly on the forearms and legs but also on her back and abdomen [Figures 1 and 2]. The skin biopsy of a lesion on the dorsal aspect of the lower extremity revealed hyperkeratosis, irregular acanthosis with sawtooth pattern, spongiosis, eosinophils, and band-like lymphocytic infiltrate at the dermal-epidermal junction, interface dermatitis with vacuolar change in the basal layer, and apoptotic keratinocytes [Figure 2c]. Thus, the initial diagnosis of lichenoid drug eruption was confirmed by histopathology. Capecitabine therapy was stopped, and the patient was started on topical methylprednisolone and oral desloratadine 5 mg twice daily. In addition, two ampules each containing 6.43 mg betamethasone dipropionate and 2.63 mg betamethasone sodium phosphate were administered intramuscularly 15 days apart. The lesions healed completely after 5 weeks of the treatment.

Capecitabine is a chemotherapeutic agent which is metabolized to 5-fluorouracil. It is used in the treatment of colorectal and metastatic breast cancer. Hand-foot syndrome is a common cutaneous side effect of capecitabine. Hand-foot syndrome presents with dysesthesia, pain, bilateral well-defined erythema, oedema, blisters, ulceration, and desquamation on palms and soles.[1] The diagnosis of hand-foot syndrome is usually made by its clinical features. Treatment options include moisturising lotion, pyridoxine, dimethyl-sulfoxide, and oral corticosteroids. However, the lesions usually disappear spontaneously within a few weeks if the causative agent is discontinued.[2]

In addition to hand-foot syndrome, a few cases with photosensitive lichenoid drug eruption have been reported during capecitabine treatment.[3][4] Hague and Ilchyshyn...