

## Skin diseases in male prisoners

Sir,

Prison is the place like other communal places where we can find specific diseases more than normal community itself. Not only the risk of getting contagious diseases such as scabies, pediculosis, dermatophytosis, and viral infections is higher but also the stressful conditions in prisons can cause the aggravation of some dermatological diseases such as psoriasis, seborrheic dermatitis, acne and alopecia areata.<sup>[1,2]</sup> In addition, due to high-risk behaviors such as intravenous (I.V.) drug abuse, tattooing and even unsafe sexual behavior, the prevalence of HIV, hepatitis B and C and genital warts can be higher among prisoners.<sup>[3]</sup>

There has been no comprehensive study to determine the prevalence of all dermatological diseases among prisoners so far. Previous studies had investigated the prevalence of one or two specific diseases. Hence, we conducted a study to investigate the prevalence of dermatological diseases in an Iranian prison.

From the total of 7500 prisoners of Gezel Hesar prison in Karaj, 1404 cases (19%) were selected by stratified random sampling and examined (all the examinees were male). An informed consent was obtained. Trained dermatologists

examined the selected prisoners individually. Analysis of the data was done by statistical tests according to descriptive studies including *t*-test and chi-square test.

The average age of the cases was  $34 \pm 11.2$  (min. 15 years and max. 85 years), the average time of imprisonment was  $2.8 \pm 1.9$  years and the average number of inhabitants per section was  $63.3 \pm 79.7$  prisoners (min. 2 and max. 230). About 113 cases (8%) had the history of I.V. drug abuse, 519 cases (37%) had the history of non-injecting addiction. About 67 cases (7%) complained of generalized itching and 140 cases (10%) mentioned of localized itching. There were tattoos on the body in 261 (19%) of cases.

From 1404 examinees, 783 (56%) (CI - 95%: 53-59%) had dermatological disease, which is similar to the society. Very common diseases such as androgenic alopecia and acquired melanocytic moles were omitted from the survey.

The most common diseases were truncal in 185 cases (13.1%) and tinea versicolor in 158 (11.2%) cases. Other findings were as follows: facial acne in 78 cases (5.5%), dry skin in 75 (5.3%), hand eczema in 55 (4%), accessory nipple (3.1%), scabies in 31 (2.2%). About 1.4% of the prisoners with scabies had crusted scabies, 69.5% had classical scabies and 24% had pyoderma, seborrheic dermatitis in 34 (2.4%), melasma in 25 (1.8%), folliculitis in 24 (1.7%), eczema in 24 (1.7%), frictional melanosis in 20 (1.4%), neurodermatitis (lichen simplex) in 19 (1.3%), alopecia areata in 15 (1.1%), urticaria in 13 (1%) and pediculosis in 12 (0.9%) cases.

The average time of staying in the prison in cases of scabies was  $0.25 \pm 5$  years. and  $2.8 \pm 2.2$  years for the ones without scabies ( $P < 0.01$ ). The average number of roommates in 31 cases with scabies was  $145.6 \pm 66.3$ , compared to cases without it, which was  $61.4 \pm 79$  this was statistically significant ( $P < 0.01$ ). The average number of room-mates in 158 cases of tinea versicolor was  $51.7 \pm 75.1$ , and without it was  $64.7 \pm$

80 and it is also statistically significant. ( $P < 0.05$ ).

Four cases with the history of I.V. drug abuse, 19 cases with the history of non-injecting addiction and 55 cases without any history of addiction had facial acne. ( $P < 0.02$ ). About 66 cases with the history of non-injecting addiction and 103 without any addiction had truncal acne, the difference was statistically significant ( $P < 0.02$ ). Higher prevalence of truncal acne (13.1%) comparing to that of facial acne (5.5%) in this study may be due to the high average age of the cases.<sup>[4]</sup> In about 15% of cases with acne, acne lesions worsened after the imprisonment. In individuals with history of addiction, facial and truncal acne were seen more and this relation was statistically significant ( $P < 0.02$ ).

We recommend a similar study of female prisoners to find out the prevalence of dermatological diseases amongst them.

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## REFERENCES

1. Demoures B, Nkodo-Nkodo E, Mbam-Mbam L. Primary health care in a prison environment, the Cameroon experience. *Sante* 1998;8:212-6.
2. Leppard B, Naburi AE. The use of ivermectin in controlling an outbreak of scabies in a prison. *Br J Dermatol* 2000;143:520-3.
3. Allwright S, Bradley F, Long J, Barry J, Thornton L, Parry JV. Prevalence of antibodies to hepatitis B, hepatitis C and HIV and risk factors in Irish prisoners: Results of a national cross sectional survey. *BMJ* 2000;321:78-82.
4. Cunliffe WJ. *The acnes*. Dunitz: London; 1989. p. 15-20.

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