Cutaneous changes in chronic alcoholics

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ABSTRACT

Background: Alcohol consumption can have a variety of cutaneous manifestations. Awareness of the cutaneous changes of alcohol abuse can allow early detection and intervention in an attempt to limit the adverse medical consequences. Hence a study was planned to determine the cutaneous changes in chronic alcoholics. Aims: To determine the cutaneous changes in chronic alcoholics. Methods: All the patients attending alcohol de-addiction camps were examined for cutaneous changes. The results were analyzed using Gaussian test and compared with other reports. Results: Out of 200 alcoholics examined for cutaneous changes, 182 (91%) had cutaneous, nail, hair or oral cavity changes. Nail changes were found in 51 (25.5%) alcoholics, koilonychia being the commonest (16%). Oral changes were present in 107 (53.5%) alcoholics and changes due to nutritional deficiency in 20 (10%). Diseases due to poor hygiene were seen in 55 (27.5%) alcoholics. Tinea versicolor (14%) and seborrheic dermatitis (11.5%) were the commonest cutaneous changes noted. Conclusion: Even though alcohol abuse has a variety of cutaneous manifestations and perhaps aggravates many diseases, there are no specific cutaneous signs of alcoholism. Knowledge of the spectrum of cutaneous manifestations of alcohol abuse can allow its early detection and treatment in an attempt to minimize the medical consequences.

Key Words: Cutaneous changes, Alcoholics

INTRODUCTION

Alcoholism is a chronic, progressive and potentially fatal disease characterized by tolerance and physical dependency or pathologic organ changes or both, all of which are the direct or indirect consequences of the alcohol ingested. Margolis and Roberts defined a chronic drinker as an individual who drinks four or more cans or bottles of beer or one and a half pint or more of whisky each day for more than three months. Alcohol consumption can have a variety of cutaneous manifestations. Awareness of the cutaneous changes of alcohol abuse can allow early detection and intervention in an attempt to limit the adverse medical consequences and minimize traffic and non-traffic related injuries and deaths. A history of alcohol intake is essential for diagnosing the related skin disorders, recognizing treatment resistance and in preoperative assessment of surgical procedures. This study was conducted as there is very little published data about this problem.

METHODS

The study group consisted of 200 patients attending alcohol de-addiction camps. A history regarding their

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alcohol intake was obtained. A detailed cutaneous examination was done including examination of the oral cavity, nails and hair. The observations were classified and tabulated, and compared with the control group, which consisted of non-alcoholics of a similar age and sex, using Gaussian test.

RESULTS

Out of the 200 alcoholics examined, 182 (91%) had cutaneous, nail, hair or oral changes. All the alcoholics were males because the study was conducted in those camps where only males came for alcohol de-addiction. Cutaneous changes were common in patients who used to take alcohol for more than ten years (58.5%). 164 (82%) of them were taking less than 500 ml per day. There were 117 (58.5%) smokers and 74 (37%) had an associated habit of pan chewing.

Cherry angiomas were present in 5 (2.5%) alcoholics. Facial erythema was seen in 4 (2%); 15 (7.5%) had bilateral gynecomastia. Features suggestive of peripheral neuropathy were seen in 39 (19.5%) alcoholics. Two (1%) alcoholics had periorbital pigmentation; 4 (2%) had bagginess below eyelids, 2 (1%) had finger crease pigmentation and 2 (1%) had idiopathic guttate hypomelanosis.

Fifty one (25.5%) alcoholics had nail changes (Table 1) and one hundred and seven (53.5%) patients had changes in the oral cavity. Chronic gingival inflammation was seen in 32 (16%) alcoholics, bluish discoloration of the gums in 47 (23.5%), severe glossitis with bald tongue in 14 (7%), leukoplakia in 3 (1.5%), and dry and cracked lips in 11 (5.5%).

Nutritional changes were seen in 20 (10%) alcoholics, the principal among those being anemia in 11 (5.5%). Skin diseases exacerbated by alcohol were seen in 38 (19%) which included 23 (11.5%) cases of seborrhea capitis and 10 (5%) of eczema. Diseases due to poor hygiene were seen in 55 (27.5%) alcoholics. Miscellaneous diseases were seen in 145 (72.5%) alcoholics. Out of them, 72 (36%) had palmar callosities. Another interesting finding was the history of accidents, road traffic or otherwise, which was seen in 12 (6%) of the alcoholics.

DISCUSSION

Out of the 200 alcoholics examined, 91% had cutaneous, nail or oral changes. In a previous study by Rosset and Oki, only 44% of alcoholics had one or more skin conditions. Most of them were chronic alcoholics who used to consume more than 500 ml per day for more than 10 years. Associated habits of smoking and pan chewing show that these alcoholics have other addictions too. Bilateral gynecomastia was seen in 7.5%
of patients, which was significantly higher compared to controls, where gynecomastia was seen only in 0.5% ($Z=3.68, p<0.001$, highly significant). Gynecomastia, a sign of hyperestrogenism, may be seen in chronic alcoholics. It is the result of increased adrenal secretion of estrone and increased testicular secretion of estradiol.\(^4\) Features suggestive of peripheral neuropathy were seen in 19.5% of the study group which is significantly higher than in the control group (3%); ($Z=5.5, p<0.001$, highly significant). Pyridoxine deficiency is commonly associated with alcoholism and is characterized by central nervous system depression and sensory disturbances with paresthesia and hyperesthesia.\(^5\)

Among the nail changes, koilonychia and clubbing were seen as a part of nutritional deficiency. Some of the oral changes seen in our study were chronic gingival inflammation, bluish discoloration of the gums and severe glossitis. Chronic gingival inflammation and bluish discoloration of the gums may be due to poor oral hygiene and chronic smoking as many of our patients in the study group were chronic smokers also. Severe glossitis leading to bald tongue may be due to the nutritional deficiency associated with alcoholism.\(^5\) Typical lingual syndrome,\(^6\) consisting of a thickened tongue, atrophy of the lingual mucosa and lacquer edges, was not seen in our patients.

Alcohol may cause primary malnutrition, by displacing essential nutrients from the diet, or secondary malnutrition, through malabsorption and hepatic cellular injury.\(^7\) Anemia, cheilitis, gingival stomatitis and aphthous ulcers were seen in our study. However, pellagra was not seen in any patient.

Among the diseases that can be exacerbated with alcohol, seborrhea capitis was seen in 11.5% of alcoholics in the study group as compared to 2.5% in the control group ($Z=3.6, p<0.001$, highly significant). In an earlier study, Rosset and Oki noted that 10.1% of the alcoholics had seborrhea capitis.\(^3\) This is simply dandruff, where immunosuppression, neglect and poor personal hygiene may have been the contributory factors. Diseases due to poor hygiene were seen in 27.5% of the alcoholics. Pityriasis versicolor was seen in 14% of them, significantly higher than in the control group (5%) ($Z=3.10, p<0.001$, highly significant).

Among the miscellaneous diseases, palmar callosity was the commonest, seen in 36% of the alcoholics. It can be attributed to their occupation rather than their alcoholism.

Six percent of the alcoholics had a history of accidents, road traffic accidents or others, with post-inflammatory scars which could be due to traumatic injuries caused by sedation secondary to alcohol consumption.

REFERENCES