



PSORIASIS AND VIRAL HEPATITIS: A RETROSPECTIVE STUDY FROM TURKEY WITH 1017 PSORIATIC PATIENTS

Medicine

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ABSTRACT

Objectives: In this research we investigated the relation of HBsAg, anti-HBs and anti-HCV with psoriasis.

Methods: This research was carried out by retrospective screening of viral hepatitis markers from the files of psoriatic patients in the dermatology department. Data of 1017 psoriasis patients who applied between January 2010 and January 2018 could be reviewed. Hepatitis markers of 243 patients were used as controls.

Results: HBsAg was positive in 2.6% of the patients (n=26). This rate was 2.6% (n=15) in males and 2.5% (n=11) in females (p=0.937). In the control group, HBsAg was positive in 3.7% (n=9) (p=0.328). 30.3% (n=308) of the patients had anti-HBs antibody positivity. Anti-HBs positivity in controls was 44.9% (n=109) (p<0.001). The mean age of patients with anti-HBs antibody positivity was 45.5±16.5 years, while the mean age of patients with anti-HBs antibodies was 47.5±13.9 years (p<0.048). Anti-HCV positivity was found in 1.0% of the patients and was 2.1% (n=5) in controls (p=0.165). The mean age of patients with anti-HCV antibody positivity was 70±13.8 years, while it was 46.7±14.6 years in patients with negative anti-HCV antibodies (p<0.001).

Conclusion: The incidence of HBV and HCV in psoriatic patients was not different from the normal population. AntiHBs antibody positivity and antiHCV positivity are not different according to sex, but may show a significant difference in age distribution.

KEYWORDS

INTRODUCTION

Psoriasis is an immun-mediated, systemic and chronic inflammatory disease that affects 1-2% of the world's population (approximately 125 million people) (1). According to many studies, moderate to severe plaque-psoriasis is frequently associated with hepatitis B virus infection (HBV) (2, 3, 4). Hepatitis B virus infection is a virus that affects about 2 billion people in the world and has serious clinical results in about 240-370 million people all over the world. More than 600,000 people die each year from HBV-related diseases (4, 5). Hepatitis C virus is reported between 2-19%. The rate of chronicity is much higher than that of HBV infection (6, 7). HbsAg positivity is around 10% in Far East Asia, Africa and Pacific countries, while it is close to 2% in Canada and Europe. The overall population of HBsAg positivity in Turkey is between 2-10%. Turkey is considered in mid endemic zone in terms of the prevalence of HBV infection.

Symptomatic HBV and HCV infections affect mainly adults (10). HBV can be detected in serum, urine, nasopharyngeal secretions, tears, vaginal secretions, menstrual blood samples and semen. Perinatal, percutaneous, sexually and transfusively transfusions are possible. (10). Although the developments in the treatment of HBV and HCV infections have accelerated in recent years, prevention is the main approach. Care must be taken for personal hygiene and sexual protection (11). In recent years, HBV infection and HBV carriers have begun to decline as a consequence of vaccination programs (12). HBV infection is still a major problem in developing countries, with serious complications such as cirrhosis and hepatocellular carcinoma (13).

In this research we investigated the relation of HBsAg, anti-HBs and anti-HCV with psoriasis.

PATIENTS AND METHODS

This research was carried out by retrospective screening of viral hepatitis markers from the files of psoriatic patients in the dermatology department of the education and research hospital. Data of 1017 psoriasis patients who applied between January 2010 and January 2018 could be reviewed. Hepatitis markers of 243 patients, who were examined for other reasons as a control group, were used. The age, sex, HBsAg, antiHBs and AntiHCV status of these patients were recorded. Statistical analysis.

The normality of the distributions of the data was analyzed by using histograms and the Shapiro-Wilk test. Continuous variables were presented as mean ± standard deviation. The mean values between the groups were compared using Student's T test. Chi-square test was used to compare categorical data. A value of p <0.005 was considered statistically significant. All statistical analyzes were performed using Statistical Package for the Social Sciences (SPSS), version 21.0 (SPSS Inc., Chicago, IL, US).

According to the Helsinki Declaration of 2004, the necessary approvals were obtained from the local ethics committee.

RESULTS

A total of 1017 cases of psoriatic patients were studied. The mean age of the patients was 46.9±14.7 years. The mean age of the patients was 46.9±14.5 years for women and 47.0±15.0 years for men. There was no significant difference between the ages of the patients according to sex (p=0.757).

The mean age of the control group (n=243) was 45.2±16.4 years. There was no statistically significant difference between the age of the patients and controls (p=0.108)

56.9% (n=579) of the patients were in male gender while 43.1% (n=438) were female. There were 56.4% (n=137) male and 43.6% (n=106) women in the control group. Both groups were similar in gender (p=0.876).

HbsAg and psoriasis

HBsAg was positive in 2.6% of the patients (n=26). This rate was 2.6% (n=15) in male patient group and 2.5% (n=11) in female patient group. The HBsAg positivity of the psoriatic patient group by sex was not statistically significant (p=0.937).

In the control group, HBsAg was positive in 3.7% (n=9). There was no statistically significant difference between the psoriasis group and healthy controls for HBsAg (p=0.328).

The mean age of the HBsAg-negative group was 46.8±14.7 years. The mean age of the HBsAg-positive group was 50.3±15.1 years. There was no statistically significant difference between the mean age of these two groups (p=0.229).

Anti-HBs and psoriasis

30.3% (n=308) of the patients had anti-HBs antibody positivity. In males this rate was 29.4% (n=170) while in females this rate was 31.5% (n=138). The difference between these ratios was not statistically significant (p=0.461).

Anti-HBs positivity in healthy controls was 44.9% (n=109). This was significantly higher than the positivity of anti-HBs in the psoriasis group (p<0.001).

The mean age of patients with anti-HBs antibody positivity was 45.5±16.5 years, while the mean age of patients with anti-HBs antibodies was 47.5±13.9 years. The difference between these two means was statistically significant (p<0.048).

Anti-HCV and psoriasis

Anti-HCV positivity was found in 1.0% of the patients. This rate was 1.2% (n=7) in males and 0.7% (n=3) in females. There was no statistically significant difference between these rates (p=0.402).

Anti-HCV positivity was 2.1% (n=5) in patients included in the study as controls. The difference was not statistically significant (p=0.165).

The mean age of patients with anti-HCV antibody positivity was 70 ± 13.8 years. In patients with negative anti-HCV antibodies, the mean age was 46.7 ± 14.6 years. There was a statistically significant difference between the two means in favor of the group with AntiHCV positivity (p<0.001).

DISCUSSION

Screening is also important because the prevalence of hepatitis viruses is high all over the world and the frequency of coexistence with chronic diseases is known (23). Since biologic agents have emerged as therapeutic options, many data have been accumulated that these agents lead to activation in patients with chronic hepatitis (24,25,26). There are also case reports that suggest that biological agents are used in psoriatic patients and do not lead to reactivation (27). However, randomized controlled studies are needed to support this. In our center, HBV and HCV scans are routinely performed on the patients who are planned to use biological agents.

In this survey of 1017 psoriasis patients, HbsAg positivity was 2.6% in males and 2.5% in females. Anti-HCV positivity was 0.7% in females and 1.2% in males, and an increase in the proportion of HBV-HCV infection in psoriasis compared to normal population was not observed. The results of our study were consistent with some studies from Turkey (8, 9). The incidence of psoriasis in 114,855 HBV and HCV patients in USA was statistically different from that of the community (28). In a UK study of the frequency of HCV-psoriasis, it has also been reported that HCV infection is more frequent in moderate to severe psoriasis (29).

HBsAg positivity in psoriasis patients did not differ in terms of sex. Similarly, anti-HBs antibodies were distributed in a similar manner in both sexes. Literature did not have a meaningful feature for hepatitis and gender relations. In addition, there was no gender difference in terms of HBsAg carriage or anti-HBs positivity in psoriasis patients (30).

Similarly, in this study, the frequency of anti-HCV in women and men was similar. In the literature, anti-HCV positivity in patients with or without psoriasis was not different by sex. This finding was consistent with the literature (31).

The mean age of the HBsAg-negative group was 46.8±14.7 years. The mean age of the HBsAg-positive group was 50.3±15.1 years. There was no statistically significant difference between the mean age of these two groups. This finding was consistent with the literature (32). On the other hand, the mean age of patients with AntiHBs antibody positivity was 45.5±16.5 years whereas the mean age of patients with negative antiHBs antibodies was 47.5±13.9 years. The difference between these two means was statistically significant. This information was also consistent with some studies in the literature (33,34).

Anti-HBs positivity was higher in the psoriasis group than in the control group. We have not been able to fully explain this. The most favorable scenario was that the control group had patients who were followed up after vaccination.

Another strong significance in this study was the comparison of the mean ages of patients with anti-HCV positivity and those with anti-HCV negative. The mean age of patients with anti-HCV antibody positivity was 70±13.8 years. In patients with negative anti-HCV antibodies, the mean age was 46.7±14.6 years. There was a statistically significant difference between these two means in favor of the group with anti-HCV positivity. In the literature, it is generally accepted that HCV incidence increases with age (22, 35).

CONCLUSION

According to the results of this study, the incidence of HBV and HCV in psoriatic patients was not different from the normal population. These results generally support the literature. Although some studies support the association of psoriasis and HBV-HCV, the situation is still unclear. AntiHBs antibody positivity and antiHCV positivity are not different according to sex, but may show a significant difference in age distribution. If the use of an immunosuppressive agent or biological

agent is required in psoriasis, hepatitis markers should also be examined.

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