A Familiar Case Of Progressive Relief Of Seasonal Allergy-like Symptoms During Jaundice

Author(s): Mr. Ervin Mingomataj, Ms. Fatmira Xhixha, Ms. Enkeleda Gjata, Ms. Entela Hyso, Mr. Kastriot Shytaj, Ms. Alketa Bakiri

Corresponding Author: Mr. Ervin Mingomataj, Allergologist-Immunologist, Dept. of Allergology & Clinical Immunology, Mother Theresa School of Medicine - Albania

Submitting Author: Mr. Ervin Mingomataj, Allergologist-Immunologist, Dept. of Allergology & Clinical Immunology, Mother Theresa School of Medicine - Albania

Article ID: WMC00620
Article Type: Case Report
Submitted on: 02-Oct-2010, 02:21:06 PM GMT Published on: 02-Oct-2010, 07:40:11 PM GMT
Article URL: http://www.webmedcentral.com/article_view/620
Subject Categories: GENERAL MEDICINE
Keywords: allergic rhinitis, jaundice, hyperbilirubinemia, cirrhosis

How to cite the article: Mingomataj E, Xhixha F, Gjata E, Hyso E, Shytaj K, Bakiri A. A Familiar Case Of Progressive Relief Of Seasonal Allergy-like Symptoms During Jaundice. WebmedCentral GENERAL MEDICINE 2010;1(10):WMC00620
A Familiar Case Of Progressive Relief Of Seasonal Allergy-like Symptoms During Jaundice

Abstract

Two sisters 18 and 20 years old had been suffering from rhinorrhea, sneezing, and nasal obstruction in May and June for 10 years. Every year, after the reach of nasal symptomatic peak in May, the above mentioned symptoms relieved progressively, whereas in the meantime bilirubin level and jaundice intensity increased. Jaundice and hyperbilirubinemia lasted about four-five months, attenuating progressively after June. Every June, total bilirubinemia reached 10-18 mg/dl (with increased levels of direct and indirect fractions), whereas until November its level decreased at 1.5-3 mg/dl (normal values 0.3-0.9 mg/dl). This alteration was associated with alteration of different hepatic enzymes such as transaminases (135 mg/dl), alkaline phosphatase (247 mg/dl), etc. Ultrasonographic examination revealed hepatomegaly (diameter 19 cm), whereas the spleen was within limits. There was no varicoza in the esophagus. Wilson disease was excluded since cupremia and ceruloplasminemia were not at all under the normal limits. The seric protein electrophoresis revealed only elevated proportion of gamma globulins (25.9%).

Introduction

Seasonal allergic and non-allergic rhinitis are chronic diseases consisting of aqueous rhinorhea, sneezing, and nasal obstruction (1). Allergic rhinitis is associated frequently with other atopic disorders, but to our knowledge, only in few cases is described the association of seasonal allergic rhinitis with hyperbilirubinemia and jaundice (1-3).

Case Report(s)

Two sisters 18 and 20 years old had been suffering from nasal obstruction, sneezing and rhinorhea in May and June for 10 years. Every year, after the reach of nasal symptomatic peak in May, the above mentioned symptoms relieved progressively, whereas in the meantime bilirubin level and jaundice intensity increased. Jaundice and hyperbilirubinemia lasted about four-five months, attenuating progressively after June. Every June, total bilirubinemia reached 10-18 mg/dl (with increased levels of direct and indirect fractions), whereas until November its level decreased at 1.5-3 mg/dl (normal values 0.3-0.9 mg/dl). This alteration was associated with alteration of different hepatic enzymes such as transaminases (135 mg/dl), alkaline phosphatase (247 mg/dl), etc. Ultrasonographic examination revealed hepatomegaly (diameter 19 cm), whereas the spleen was within limits. There was no varicoza in the esophagus. Wilson disease was excluded since cupremia and ceruloplasminemia were not at all under the normal limits. The seric protein electrophoresis revealed only elevated proportion of gamma globulins (25.9%).

According their reports both sisters did not take anti-allergic or symptomatic treatment prior to consultation in the Allergy unit of our Specialties Policlinic during the last year. Performed skin prick tests and specific IgE for Mediterranean aeroallergens in both cases were negative. The hepatalogical analyses such as ultrasound and biochemical investigation indicated for the presence of biliary cirrhosis for two sisters. Based on the clinical and laboratory findings, the diagnosis of probable seasonal allergic rhinitis associated with probable primary biliary cirrhosis was suggested.
medicaments have been not used even after the diagnosis assessment (September 2006), because subjects have shown nasal symptoms only during the period May-June.

Discussion

The relief of respiratory allergic symptoms during jaundice had been described in few (2-3) cases, whereas in some cases it was described secondary cholestasis after treatment of respiratory symptoms with antibiotics or antihistamines (2-5). Regarding our subjects, drug-induced cholestasis was less plausible as long as the altered profile of bilirubin was present even when the patients were not under the antihistamines or antibiotic treatment. The presence of the Gilbert’s syndrome, a hereditary unconjugated nonhemolytic and hyperbilirubinemia might be possible (6). However, the lack of diagnostic analysis for pathologic variants of the human bilirubin UDP-glucuronosyltransferase (UGT1A1) due to objective reasons and the absence of chronic liver disease or liver pathology during this syndrome lead to a poor support for the presence of this genetic pathology in the described familiar case (6-7).

Interestingly, according to some recent publications the relief of allergic symptoms during hyperbilirubinemia is mediated due to its anti-oxidant activity (2, 8). Similarly to our subjects, Ohrui et al. have described a subject who seemed to have an inverse relation between expression of asthma symptoms and bilirubinemia level, whereas Cinzos et al. reported a direct relationship between jaundice and induction of anergy (2, 9). Thus, bilirubin might give protection against oxidant-induced airway inflammation, and therefore the fall of hepatic function during the occurrence of seasonal allergic symptoms may demonstrate its compensatory anti-allergic effects (2).

Conclusion

In conclusion, this might be the first familiar reported case with relief of respiratory seasonal allergic symptoms during jaundice. In our opinion, further clinical and genetic investigations are required to elucidate these findings.

Acknowledgement(s)

We are cordially thankful to patients that collaborated with us and permitted the publication of this case report.

Authors contribution(s)

E. Mingomataj is the principal manuscript author.
F. Xhixha has reported the case and has undergone the allergy skin testing.
E. Gjata, E. Hyso, K. Shytaj contributed with helpful discussions.
A. Bakiri helped in the manuscript composition.

References

Disclaimer

This article has been downloaded from WebmedCentral. With our unique author driven post publication peer review, contents posted on this web portal do not undergo any prepublication peer or editorial review. It is completely the responsibility of the authors to ensure not only scientific and ethical standards of the manuscript but also its grammatical accuracy. Authors must ensure that they obtain all the necessary permissions before submitting any information that requires obtaining a consent or approval from a third party. Authors should also ensure not to submit any information which they do not have the copyright of or of which they have transferred the copyrights to a third party.

Contents on WebmedCentral are purely for biomedical researchers and scientists. They are not meant to cater to the needs of an individual patient. The web portal or any content(s) therein is neither designed to support, nor replace, the relationship that exists between a patient/site visitor and his/her physician. Your use of the WebmedCentral site and its contents is entirely at your own risk. We do not take any responsibility for any harm that you may suffer or inflict on a third person by following the contents of this website.