World Bulletin of Public Health (WBPH)
Available Online at: https://www.scholarexpress.net
Volume-7, February 2022
ISSN: 2749-3644

AUTO- HEMOLYTIC ANEMIA DISEASE: A SYSTEMATIC REVIEW OF FREQUENCY STUDIES: REVIEW ARTICLE

Hiyame Abdul Ridha Al-Awade [1], Batool Shakir Abed Almjalawi [2], and Bedour Ali Mohammed [3].
1 Dept. of Biology, College of Education for pure Sciences
2 General Directorate of Education in Karbala, Karbala, Iraq.
3 Department of Chemistry, College of Science, University of Karbala, Karbala, Iraq
Corresponding Euthor- batoolshakir5@gmail.com

Article history:

Received: December 8th 2021
Accepted: January 10th 2022
Published: February 19th 2022

Abstract:

In this review of Auto-Immune Hemolytic Anemias (AIHAs) were a group of rare diseases defined by the obliteration of Red Blood Cells (RBCs) by cold or warm antibodies. There was no licensed action for (AIHA) at the time, and clinical studies on therapy and diagnosis were frequently dependent on certain national guidelines and expert judgments owing to a lack of recommendations. The (AIHA) in diagnosis, treatment and clinical practice. (AIHA) proves to be problematic. In addition, adequate understanding of the laboratory tests and pathophysiology done by the transfusion laboratory was required for a precise diagnosis

Keywords: Auto Hemolytic Anemia Disease, Red Blood Cells and autoantibodies.

INTRODUCTION:

The Auto-Immune Hemolytic Anemias (AIHA) are a group of disorders characterized by hemolysis caused by antibodies directed against Red Blood Cell (RBC) surface antigens. AIHA was divided into two groups based on the optimal temperature of antibody binding and RBC surface antigens: cold type and warm type. The paroxysmal cold hemoglobinuria (PCH) and cold agglutinin disease types of AIHA were further separated (CAD). The warm-type (AIHA) was the most well-known type of (AIHA), in which (IgG) antibodies (Abs) were primarily directed against (RBC) destruction and (Rh) antigens in the reticuloendothelial system. (AIHA) was now considered an Organ-Specific Auto-Immune Disease (OSAID) in which (RBCs) were the autoimmune recognition's target. However, the devices that started the aberrant creation of (RBC- Auto-Abs) were mostly unknown [1].

Auto-Immune Hemolytic Anemia (AIHA) was a very rare illness characterized with an estimated incidence of (0.8-3 per 105/year in adults, a mortality rate of (11 percent. 1,2), and a prevalence of (0.8-3 per 105/year in children, caused by autoantibodies directed against self-Red Blood Cells (RBCs) (17: 100,000). It will be caused by lymphoproliferative syndromes (20%) or idiopathic (50%) lymphoproliferative syndromes, autoimmune disorders (20%), malignancies, and infections. AIHA was most common in childhood and very rare in infancy (0.2 per 105/year), and it was related with immunological abnormalities in 53% and 37% of cases, respectively. If Hemolytic Anemia (HA) is linked to Immune Thrombocytopenia Evans Syndrome (ITES), (AIHA) may develop gradually, with a life-threatening anemia, simultaneous physiological compensation, or severe and fulminant start. The (presence/absence) of co-morbidities, underlying disorders, and the kind of hemolysis, which is mostly influenced by the autoantibody's properties and rate, were also included in the clinical features. In addition, patients with (IgM warm AIHA) had a higher rate of deaths and severe hemolysis (up to 22%) than those with other kinds of AIHA (AIHA). It's vital to remember that the severity of anemia is linked to the capabilities of the erythroblast response [2].

2- AUTOIMMUNE HEMOLYTIC ANEMIA SIGNS AND SYMPTOMS

Depending on the kind of (AIHA), some symptoms were different: Pain in the back and legs, Headache, Bluish or rThe symptoms of (AIHA) were all the same as those of other kinds of anemia. Weakness and weariness Yellow skin or whites of the eyes (jaundice) Dark urine A sense of abdominal heaviness associated to an enlarged spleeneddish color in hands and feet, Digestive problems and Old hand and feet [3].

Fatigue, fast heartbeat, pale color, similar to other anemias, black urine, shortness of breath, backache, and chills are common symptoms of Acquired Auto-Immune Hemolytic Anemia (AAIHA). In extreme cases, the spleen may expand, and the skin may become yellow (jaundice). If your autoimmune hemolytic anemia was caused by anything else, the symptoms of that thing can be the most noticeable [4].

World Bulletin of Public Health (WBPH)
Available Online at: https://www.scholarexpress.net
Volume-7, February 2022
ISSN: 2749-3644

3- AUTO-IMMUNE HEMOLYTIC ANEMIA DISEASE DIAGNOSIS AND TREATMENT:

The majority of Immune-Mediated Disorders were thought to Lack of immunological activation or tolerance may be to blame (IT). Corticosteroids and immunosuppressive drugs (ISD) were previously used as therapeutic options, both of which had substantial adverse effects and often compromised protective immunity [5]. At this time, although there is no FDA-approved therapy for Auto-Immune Hemolytic Anemias (AIHAs), there are some national standards. Furthermore, several new therapy options were being considered that might address the underlying processes of Hemolysis in these illnesses. Because a better quantitative assessment of its therapy is required, outcomes and the chronic nature of most (AIHAs) [6]. The diagnosis of Auto-Immune Hemolytic Anemia (AIHA) was a challenge for both the doctor and the laboratory, since the laboratory investigation and the Immuno-Hematology (IH) laboratory may be difficult and time-consuming, when a blood transfusion is necessary, this is especially true. There was a pressing need to begin counseling. as soon as possible on several occasions. As a result, tight collaboration and effective communication between clinicians and laboratories became a must. The goal of this assessment was to provide an overview of the Laboratory Techniques utilized in the medical diagnosis of (AIHA). In addition, a brief overview of treatment options in (AIHA) will be provided [7]. AIHA is a kind of acquired hemolysis that occurs when the immune system of the patient attacks its own Red Cell antigens. A novel therapeutic target that may have an impact on clinical outcomes is complement activation [8].

REFERENCES:

1. Marcus, N., Attias, D., & Tamary, H. (2014). Autoimmune hemolytic anemia: current understanding of pathophysiology. In *Hematology Education: the education program for the annual congress of the European Hematology Association* (Vol. 8, pp. 331-8).
2. King, K. E., & Ness, P. M. (2005, July). Treatment of autoimmune hemolytic anemia. In *Seminars in hematology* (Vol. 42, No. 3, pp. 131-136). WB Saunders.
3. [Liebman, H. A., & Weitz, I. C. (2017). Autoimmune hemolytic anemia. *Medical Clinics*, *101*(2), 351-359.].
4. Kroenke, K., & Mangelsdorff, A. D. (1989). Common symptoms in ambulatory care: incidence, evaluation, therapy, and outcome. *The American journal of medicine*, *86*(3), 262-266.
5. Kaegi, C., Wuest, B., Schreiner, J., Steiner, U. C., Vultaggio, A., Matucci, A., ... & Boyman, O. (2019). Systematic review of safety and efficacy of rituximab in treating immune-mediated disorders. *Frontiers in immunology*, *10*, 1990.
6. Jäger, U., Barcellini, W., Broome, C. M., Gertz, M. A., Hill, A., Hill, Q. A., ... & Berentsen, S. (2020). Diagnosis and treatment of autoimmune hemolytic anemia in adults: Recommendations from the First International Consensus Meeting. *Blood reviews*, *41*, 100648.
7. Zeerleder, S. (2011). Autoimmune haemolytic anaemia-a practical guide to cope with a diagnostic and therapeutic challenge. *Neth J Med*, *69*(4), 177-184.
8. Gehrs, B. C., & Friedberg, R. C. (2002). Autoimmune hemolytic anemia. *American journal of hematology*, *69*(4), 258-271

.