

# Epidemiology of alopecia areata in Baqubah city/Diyala-Iraq

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## Abstract

**Background:** Alopecia areata is a disease scalp and body hair leading to patches of non-scarring alopecia which is heterogeneous, it is unknown as autoimmune disease, there is no prevention & hard cure.

**Objective:** To determine the prevalence rate according to sex & age and the causative factors of alopecia areata in Baquba city.

**Patients and Methods:** A cross-sectional study was in Baquba Teaching Hospital dermatological clinic from 1<sup>st</sup> of October 2020 to 31<sup>st</sup> of March 2022 at Baqubah teaching Hospital /outpatient Dermatology clinic. The study sample (100) patients with different clinical variants of Alopecia Areata, (71) males and (29) females of different age groups.

**Results:** This study shows that high prevalence among males (71%) with age group (21-30) years old with single patchy alopecia areata with past history of recurrence and associated psychological history. (100) cases of AA were diagnosed. (25%). Single lesion of AA was the most common manifestation (68%). Recurrence history of AA Positive in (55%). Personal history of stress was associated with AA in (64 %). The most common site of alopecia areata was in head (55%).

**Conclusion:** It was concluded that, alopecia areata was more common in male, age (21-30) years, most common single lesion, more in head, with psychological stress history.

**Keywords:** Alopecia areata, prevalence rate, Stress

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## Introduction

Hair is one of human appearance. Hair length, colour, style had been used to make statements about sex, religion, and more. Alopecia, or hair loss, is a common and distressing problem, and a lost sense [1]. Alopecia areata is characterized by patches of non-scarring alopecia affecting scalp and body hair that can cause psychological problem. Alopecia is a form of non-scarring hair loss that occurs on hair bearing skin [2]. It affects approximately 0.1% to 0.2% of the

world population. Most patients are relatively of young age group [3].

It is a chronic, presenting with non-scarring hair loss, with-circumscribed round or oval patches of hair loss on the scalp or body, it may affect the entire scalp (alopecia totalis) or the entire body (alopecia universalis) [4-11].

## Patients and Methods

This cross-sectional study was done from 1<sup>st</sup> of October 2021 to 31<sup>st</sup> of March 2022 at Baqubah Teaching Hospital/outpatient

Dermatological clinic diagnosed by dermatologist. The study sample included 100 patients with different clinical variants of alopecia areata, 71 males and 29 females of different age groups. Special questionnaire form used including; Gender, Age, Clinical types, History, Psychological all the patients whom attending the dermatological clinic.

The patients enrolled in this study were:

-Patients had alopecia areata who were either not treated before or stopped treatment for at least two months.

- Patients with different clinical varieties (Single patch, multiple patches and, alopecia totalis and alopecia universalis).

**Exclusion criteria:**

1. Patient <1 years.
2. Pregnant and lactating women.

**Statistical Analysis**

Data was analyzed by using computer, excel and the variables analyzed by number, percentage and proportion.

**Results**

This study shows that the disease was high among males 71% with age group more than 20 years old with single patchy alopecia areata with past history of recurrence with associated psychological history. One hundred patients were included with different clinical variants of alopecia areata, 71 males and 29 females of different age groups. Table(1) shows that higher prevalence among male (71%) while (29%) among female. The highest age group was (21-30) years (25%) as shown in Table (2). Table (3) shows that the most common clinical type was single lesion of alopecia areata (68%). History of recurrence of Alopecia Areata was (55%) as shown in Table (4). Table (5) shows that there was high association of alopecia areata with psychological stress (64%).

The most common site of lesions of Alopecia Areata was the head as shown in Table (6).

**Table (1):** Distribution of the Alopecia areata disease according to the gender in the studied sample

| Gender | No. | %    |
|--------|-----|------|
| Male   | 71  | 71%  |
| Female | 29  | 29%  |
| Total  | 100 | 100% |

**Table (2):** The distribution of Alopecia Areata according to age Groups in the studied there sample

| Age(years) | No. | (%)  |
|------------|-----|------|
| >1year     | 5   | %    |
| 1-10       | 10  | 10%  |
| 11-20      | 15  | 15%  |
| 21-30      | 25  | 25%  |
| 31-40      | 20  | 20%  |
| 41-50      | 15  | 15%  |
| 51-60      | 8   | 8%   |
| >60years   | 2   | 2%   |
| Total      | 100 | 100% |

**Table (3):** Distribution of alopecia areata in relation to clinical types

| Clinical types       | No. | (%)  |
|----------------------|-----|------|
| Single lesion        | 68  | 68%  |
| Multiple lesion      | 15  | 15%  |
| Alopecia totalis     | 11  | 11%  |
| Alopecia universalis | 6   | 6%   |
| Total                | 100 | 100% |

**Table (4):** Frequency distribution of recurrent history of alopecia areata

| Recurrent History | No. | (%)  |
|-------------------|-----|------|
| Positive          | 55  | 55%  |
| Negative          | 45  | 45%  |
| Total             | 100 | 100% |

**Table (5):** Frequency distribution with associated psychological history

| Psychological History | No. | (%)  |
|-----------------------|-----|------|
| Psychological stress  | 64  | 64%  |
| Depression            | 25  | 25%  |
| No                    | 11  | 11%  |
| Total                 | 100 | 100% |

**Table (6):** Frequency distribution according to the sites of lesions of alopecia areata

| Sites of Alopecia Areata | No. | (%)  |
|--------------------------|-----|------|
| Head                     | 55  | 55%  |
| Beard                    | 35  | 35%  |
| Eyebrow                  | 8   | 8%   |
| Eyelash                  | 2   | 2%   |
| Total                    | 100 | 100% |

## Discussion

One hundred patients were included with different clinical variants of Alopecia Areata, 71 males and 29 females of different age. Alopecia areata is heterogenous, autoimmun, non-scarring hair loss disorder, or it may affect the entire scalp (alopecia totalis) or the entire body (alopecia universalis) [3]. The course of the disease is unpredictable with, and sudden relapse at any time [12].

In this study the patients included were males (71%) and females (29%) and the study showed high prevalence in male than female. This was in agreement with [12],

who performed a study on 43 AA patients; of whom 31 were men and 12 were women. On the other hand was disagree with [7]. Suggested that AA is more common in females than males. other study showed that there is no difference between male and female in distribution of alopecia areata [13]. The age result shows that alopecia areata more common in group age more than 20 years, agree with research [16], and was disagree with research [17].

This study showed an agreement with study conducted in 1991 with high rates of stress (39%) and depression (39%) were reported in

a cohort of 31 individuals in the United States [6]. Depression were also observed in a study conducted in Iran, with a high percentage of participants suffering from stress (47%) and depression (56%) respectively [15]. Clinical type shows that single patchy type is most common presentation and that was agree with research [13]. The result of psychological history shows that stress has strong relationship with alopecia areata that agree with the study in Brazil indicated that hair loss was common complaint among women associated with a high prevalence of stress (56%) [19].

Individuals who had hair loss are able to cover the loss with remaining hair and likely to experience psychocology of stress [18]. The study shows that head is most common site and that agree with research by [14-19].

### Conclusions

It was concluded that, alopecia areata was more common in male, age (21-30) years, single lesion, more in head, with history of psychological stress.

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**Ethical clearance:** Ethical approval was obtained from the College of Medicine / University of Diyala ethical committee for this study.

**Conflict of interest:** Nil

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## دراسة وبائية داء الثعلبة في مدينة بعقوبة / ديالى

رحاب شهاب احمد<sup>١</sup>، شهاب احمد شاكر<sup>٢</sup>، احمد صالح مهدي<sup>٣</sup>، ناظم غزال نعمان<sup>٤</sup>

### المخلص

**خلفية الدراسة:** داء الثعلبة هو أحد أمراض المناعة الذاتية بواسطة الخلايا المناعية تستهدف بويصلات الشعر في الرأس والجسم وهذا يتسبب في امراض نفسية. داء الثعلبة غير متجانس سريريا ولم تعرف اسبابه لحد الان. ولا يوجد علاج وفائي او شفاء نهائي له.

**اهداف الدراسة:** لتحديد نسبة انتشار داء الثعلبة والعوامل المسببة له.

**المرضى والطرائق:** تم إجراء دراسة مقطعية من ١ أكتوبر ٢٠٢١ إلى ٣١ مارس ٢٠٢٢ في مستشفى بعقوبة التعليمي / استشارية الأمراض الجلدية. تضمنت البيانات ١٠٠ مريض يعانون من متغيرات سريرية مختلفة من داء الثعلبة و ٧١ من الذكور و ٢٩ من الإناث من الفئات العمرية (٦٠-١) عاما.

**النتائج:** أظهرت هذه الدراسة أنه تمت مشاهدة مائة حالة. كان توزيع داء الثعلبة حسب الجنس أكثر شيوعاً بين الذكور (٧١٪). الفئة العمرية الشائعة عاملاً (٣٠-٢١) عاما (٢٥٪). وكانت البقعة الواحدة هي الشكل الأكثر شيوعاً (٦٨٪). تاريخ تكرار إيجابي في (٥٥٪) وسالب في (٤٥٪). ارتبط التاريخ الشخصي للإجهاد بمرض داء الثعلبة في (٦٤٪). الموقع الأكثر شيوعاً لداء الثعلبة كان في الرأس (٥٥٪).

**الاستنتاجات:** ان داء الثعلبة اكثر شيوعا بين الذكور بعمر (٣٠-٢١) عاما، وان البقعة المنفردة هي الاكثر، وفي منطقة الرأس مع وجود تاريخ اجهاد نفسي.

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