



**ADDIS ABABA UNIVERSITY
COLLEGE OF HEALTH SCIENCES
SCHOOL OF MEDICINE**

**THE MAGNITUDE OF PITYRIASIS ROSEA: A RETROSPECTIVE ANALYSIS OF
DATA RECORDS AT ALERT HOSPITAL DERMATOLOGYCLINIC, ADDIS ABABA,
ETHIOPIA OF CASE SEEN FROM JANUARY 2018 TO DECEMBER 2020**

**A RESEARCH RESULT TO BE SUBMITTED TO THE DEPARTMENT OF
DERMATOVENEREOLOGY, SCHOOL OF MEDICINE, COLLEGE OF HEALTH
SCIENCES, ADDIS ABABA UNIVERSITY IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE SPECIALITY CERTIFICATE IN
DERMATOVENEREOLOGY**

BY: MERON W. (MD)

ADVISORS

DR YOSEF LEGESE (MD , DERMATOSURGEON ,ASSISTANT PROFESSOR)

DR BEZAWIT LAKEW (MD, DERMATOVENROLOGIST,ASSISTANT PROFESSOR

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ACRONYMS

AAU- Addis Ababa University

ALERT- All African leprosy rehabilitation and training

ETB- Ethiopian birr

WHO - world health organization

PI- principal investigator

NGO- non-governmental organization

NSAID-non steroidal anti-inflammatory drug

OPD- outpatient department

PR-pityriasis rosea

URTI-upper respiratory tract infection

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ABSTRACT

BACKGROUND

Pityriasis Rosea is an acute self-limiting papulosquamous skin disorder commonly observed in otherwise healthy children and young adult. In 15–90% of cases, typical PR begins with a medallion-like erythematous plaque, called a herald patch, followed by a secondary eruption consisting of smaller scaly papulosquamous lesions on the cleavage lines of the trunk, These secondary lesions take the shape of a Christmas tree when they are arranged along the Langer's lines on the back it appears in crops at intervals of a few days and reaches its maximum in about 2 weeks

OBJECTIVE

To assess the magnitude of pityriasis rosea from medical records of patients attended dermatovenerology OPD at ALERT center from 2018-2020 G.C

METHOD

Hospital-based retrospective, descriptive study was conducted on all medical records of patients who attended a department of dermatovenerology OPD at ALERT center from December 2018 to January 2020, the study period was from June-August 2021.

RESULT

One hundred forty-eight patients presented with pityriasis rosea. mean age at presentation was 19.48 and Male to Female ratio 1:1.19 peak cases were seen in January .forty-three of the patients were present within weeks. herald patch was present in 18.2% of the patients. the trunk was the commonest affected site and itching was present in 70 patients and it was mild in the majority. 40.5% of the patients were treated with the topical steroids.

CONCLUSION

The study has shown the magnitude of pityriasis rosea was 0.26% with female predominance .most of them present from January to June. The majority of them had one visit

1: INTRODUCTION

1.1 BACKGROUND

Pityriasis rosea (PR) is an acute, self-limiting exanthematous disease associated with the endogenous systemic reactivation of human herpesvirus (HHV)-6 and/ or HHV-7. (1) In 15–90% of cases, typical PR begins with a medallion-like erythematous plaque, called a herald patch.

A herald patch is an ovoid, erythematous, slightly raised patch 2–10 cm in diameter, typically with a colored squamous edge followed by a secondary eruption consisting of smaller scaly papulosquamous lesions on the cleavage lines of the trunk, These secondary lesions take the shape of a Christmas tree when they are arranged along the Langer's lines on the back it appears in crops at intervals of a few days and reaches its maximum in about 2 weeks. The duration may vary from 2 weeks to a few months. Papulosquamous lesions in PR are usually located on the trunk and proximal extremities. Exanthema spreads and peaks within two weeks. This disseminated phase generally begins to decline within 2 to 4 weeks; however, in some cases, it may take more than 3–5 months (1, 2)

Itching is variable, with moderate to severe itching occurring in 25% of the patients. Prodromal symptoms and upper respiratory tract findings, such as sore throat, weakness, loss of appetite, and mild fever are present in more than 69% of patients before or during the eruption phase

PR can be seen all year round, but it is more frequent in winter, spring and autumn. Mucous membrane lesions occur in 16% of patients but are usually overlooked or rarely reported since they are mostly asymptomatic. Although oral mucous lesions are mostly present in the form of ulcerations, they may also occur as erythematous macules or plaques, and punctuate hemorrhagic or erythematous lesions. Involvement of the oral mucosa is more commonly seen in pediatrics, pregnant, relapsing, and persistent cases than in classical PR. In adults, hands and feet are generally spared (2)

The cause of pityriasis rosea (PR) is unknown (3). It is suspected to be associated with an infection. (4) Studies on the association of PR with human herpesvirus 7 infection have yielded conflicting results. (3) the distinct clinical course, a lack of recurrences in most of the patients, and the presence of temporal case clustering support an infectious etiology. Furthermore, seasonal variation, association with respiratory tract infections, and a history of contact with PR patients in some patients do support an infectious etiology (4)

Recent studies have reported no evidence of PR associated with cytomegalovirus, Epstein- Barr virus, parvovirus B19, *Chlamydia pneumoniae*, *Chlamydia trachomatis*, *Legionella longbeachae*, *Legionella micdadei*, *Legionella pneumophila*, and *Mycoplasma pneumoniae* infections. (3)

However, evidence supporting the infectious cause of PR is still emerging. A double-blind placebo-controlled study reported the benefit of erythromycin in modifying the course of PR. ninety patients with PR were alternatively assigned to treatment and placebo groups; 33(73%) of the 45 patients in the treatment group achieved complete response after 2 weeks of treatment while none did so in the control group ($P < .001$). (5) many case reports of 2 or more patients with PR in the same family or intimate environment .epidemiologic studies reported

associations of PR with a history of respiratory tract infection and unfavorable social and economic background and higher incidence among workers in larger collectives. McPherson et al reported that significantly more dermatologists than otolaryngologists had had PR, claiming that frequent exposure to PR by dermatologists during their practice led to an increased risk. (5)

1.2 STATEMENT OF THE PROBLEM

Skin disease is very common in both developing and developed countries. Prevalence surveys carried out over the past 20 years demonstrate this, with one-quarter to one-third of the population suffering from a skin problem that could benefit from medical care. Skin disease is even more prevalent in developing countries (up to 80% in studies carried out in African countries), being among the most common health problems seen in primary care settings.

The Global Burden of Disease Report estimates that skin diseases account for 896 000 disability-adjusted life years(DALYs) in sub-Saharan Africa, a disability burden similar to that attributable to gout, endocrine disease, panic disorders, and war-related injuries. (10)

Despite the evidence for the large burden on population health and the availability of cost-effective interventions, skin disease is low on the international policy agenda and its public health importance is often underestimated. In the Ethiopian context, skin disease is considered the common problem in both urban and rural areas; Skin diseases are also among the leading causes of outpatient attendance in Ethiopia, ranking sixth in 2005 and accounting for 3.3% of total outpatient visits. (10)

PR is a common disease in all races with an incidence of 6.8 per 1000 dermatological patients. (6)

1.3 SIGNIFICANCE OF THE STUDY.

In Ethiopia, very little is known about the prevalence of pityriasis rosea. There is no published data or research on pityriasis rosea in Addis Ababa and there is no published data on the topic under the study in ALERT. Therefore, this study is useful to put baseline information as well as to forward recommendations, also to initiate others to work further on the same and/or other related issues

2. LITERATURE REVIEW

The approximate incidence of pityriasis rosea is 0.5% to 2%.it affects people of both genders, typically between 15 and 30 years of age, but it also affects older adults and children. (15)

A search which was conducted in March 2020 in PubMed clinical Queries that published within the past 10years resulted in PR occurring mainly in individuals between 10 and 35 years of age with a peak during adolescence human herpesvirus (HHV)-7 and HHV-6 have been implicated as the causative agents in some patients with PR. A mild prodrome consisting of headaches, fever, malaise, fatigue, anorexia, sore throat, enlarged lymph nodes, and arthralgia is present in about 5 % of patients. The most common presenting sign, found in approximately 80%, is a herald patch. A generalized; bilateral, symmetrical eruption develops in approximately 4 to 14 days and continues to erupt in crops over the next 12 to 21 days. Bilateral Typical course is 6-8 weeks. (12)

A Prospective observational study was done in the general pediatric clinic, adolescent clinic, and emergency department of Children's Hospital of Michigan, which showed of the 50 patients with PR, there were 18 boys and 32 girls. The peak incidence of cases was in April and May. pruritus was present in 90% of patients. A herald patch was seen in 88%. Nearly two-thirds of patients had the usually described or "classic" papulosquamous lesions, one-third had purely papular lesions, and 4% had papulovesicular lesions. Lesions involved the trunk in all patients, the neck in 44%, the face in 30%, arms, and forearms in 60%, thighs and legs in 54%, the pelvis or groin in 12%, and the scalp in 8%. No oral lesions were seen. Post-inflammatory pigmentary changes occurred in 31patients (62%). Hyperpigmentation developed in 48% of patients and Hypopigmentation, in 14%. Some patients had both hyperpigmentation and hypopigmentation. The presence of residual pigmentation changes (and of pruritus) was not correlated with the number of lesions. Hyperpigmentation did not reflect lesion type, but hypopigmentation was significantly associated with the presence of papular or papulovesicular lesions. (17)

Nearly one-half of patients had resolution of disease activity (no new lesions, resolution of existing lesions)within 2 weeks of onset. Only 20% of patients had active disease lasting more than 4 weeks. Two of the patients were household contacts of an individual with PR (concurrency rate of 4%). Another patient was reported by the parent to have had an episode of PR in the past (disease recurrence of 2%). (17)

When coming to a retrospective cohort study ofGenoa Italy between 2000 and 2013 to assess the prevalence of relapses of pityriasis rosea (PR), Of 570 cases, 21 (3.7%) relapsed. Most of them had a single episode, but 4 had two episodes and 2 had three episodes. Most recurrences occurred within 1 year (16/21, 76.2%). Men outnumbered women and the mean age of the relapsing patients (20.3 years) was higher than that for the primary episode. (13)

Where a prospective study was done in turkey Istanbul medipolhospital for 4 years from 2013-2017 of 212 patients, of whom 136(64.2%) were female and 76(35.8%) were male. the median age was 26.0 and 30.0 for female and male patients, respectively. Of the patients, 49.0% had presented to the hospital 7 days after the onset of the rash. More than half of the patients applied in the February–May period (51.4%), and some in March (24.5%). (2)

At the time of onset of PR symptoms, a medallion lesion was observed in 98 patients (46.2%) and was not present in 114 patients (53.8%). Among the patients presenting with a medallion, this lesion was located on the trunk for 45 patients (45.9%), back for 19 (19.4%), leg for 12 (12.2%), neck for 9 (9.3%), arm for 6 (6.1%), armpit for 3 (3.1%), hip for two (2.0%), pubic region for one (1.0%), and wrist for one (1.0%). In 10 patients (4.7%), oral mucosa involvement was detected in the form of painless ulcers. (2)

On presentation, 89 patients (42.6%) did not have itching, 60 (28.7%) had mild itching, 28 (13.4%) had moderate itching and 32 (15.3%) had severe itching. There were no accompanying or preceding prodromal symptoms in 197 patients (92.9%) whereas the remaining 15 patients (7.1%) had signs of influenza infection. (2)

Another Turkey study which Çölgeçen et al. stated that few reports of pediatric PR are currently available. However, in 640 consecutive PR patients collected 47 children (7%) were under 10 years of age. From 31 of them (19 females and 12 males with a mean age of 6.9 years). (14)

Another study of turkey which was conducted between February 2008 to December 2008 resulted in a total of 52 patients with PR (of which 27 (51.99%) were women and 25 (48.1%) were men). The Women-to-men ratio was 1.08/1. Herald patch was present in 40(76.9 %) patients and a majority of them located on the trunk 22(55%). (28)

The descriptive study which was conducted for a period extended from October 2007 through June 2008 at Rizgary Teaching Hospital in Erbil city of Iraq Eighty-eight patients who were diagnosed to have pityriasis rosea were enrolled out of which Classical pityriasis rosea was the commonest morphological type and found in 54 (61.5%) patients, 32 of them were females and 22 were males. Atypical pityriasis rosea was found in 38.5% of patients, 16 of them were females and 18 were males. Cases with an absence of herald patch were considered atypical, but with classical distribution and morphology of secondary lesions, it was found in 15 (17%) patients. (11)

Retrospective epidemiologic study in Hong Kong primary care setting out of 41 patients with PR, 20 were male and 21 were female (male: female ratio, 1:1.05). their age ranged from 55 years (mean age, 25.9 years). the monthly incidence of PR was negatively correlated with monthly mean air temperature ($\gamma_s = -0.04$), i.e, there were more cases of PR in colder months. (5)

In a one-year prospective study in middle road hospital, Singapore 214 patients were studied with peak incidence was in the 20-24 age .there was male predominance more patients were seen in March, April, and November. The rash lasted from 1 to 8 weeks in 84.4% of the patients with most patients suffering from the rash for 5 weeks. (26)

In another Singapore study which was a retrospective chart review of one year at the national skin center, there were 368 patients; their age range from 9 months to 82 years with a peak in the 20 to 29 years age group. There were slightly more males (1.2:1). the clinic incidence was 6.5 per 1000 cases. The cases were seen throughout the year. About a quarter of the patients gave a history of viral infection shortly before or during the occurrence of the rash. Most cases had a typical truncal distribution. The herald patch was observed in 63 patients(17%).inverse distribution involving mainly the extremities were seen in 22 cases(6%) and eczematoid lesions in 20 cases(5.4%)treatment was symptomatic and consisted of topical steroids and antihistamines thirty patients(8%) were given prednisolone for extensive eruptions. (29)

In another retrospective study conducted in a tertiary care center based in central India, the age of the patients ranged from 9 to 54(mean-20.32) years with a male to female ratio of 1.3:1. A history of prodromal symptoms was present in 11(27.5%)patients. Pruritus was a common symptom in 30 of 40(75%) patients. of 40patients, 15(35%) had herald patch. the morphology of skin lesions was typical in most of 5%). (6)

Another retrospective study was conducted at a tertiary referral center in Guwahati, Assam, India. Of a total of 136 patients male: female ratio was 1:1.13. They were between 13 months and 59 years old with the maximum incidence in the age clusters 20 and 30-39. (4)

Coming to a cross-sectional study was done in southern India the age of the patients ranged from 3 to 47 (mean 20.32) years. Incidence is highest among patients aged 11-20 years followed by those 21 to 30 years. There was male predominance and seasonal variation was not evident. the average interval of onset of lesions and presentation to the physician was 14.45 days.pruritis was a common symptom(70%) of 73 patients,67 had herald patch. the clinical feature of most of the cases is with the classical pattern of pityriasis rosea. (9)

In other studies in India madras medical college, Chennai from 2006-2008, PR incidence was 1.43% and highest among the age group between 11-13 years (80%). Out of 100 cases, 68 were male (68%) and 32 were female (32%) with male predominance. Most of the patients were seen from September to February which is the rainy and winter season. Herald patch was present in 57 cases and absent in 43.it occurred more frequently over the trunk followed by the thigh. In this study 51 patients (51%) had classic PR and 49(49%) patients had an atypical presentation, of which, 43patients (43%)had no herald patch. 8 patients with inverse PR had lesions mainly over The extremities and 3 of them had lesions over the face .itching was absent in 9 patients, mild in 86, moderate 3, and severe in 2 patients. In their study, none of the patients had lesions over the mucous membrane. (27)

the father Muller Medical College, Mangalore, Karnataka India study which was conducted from May 1998 to April 1999 resulted that the age group of the patient ranged from 6 months to 50 years. Among 50 patients, 30(60%) were males and 20(40%) were females giving a male: female ratio of 1.5:1. Sixteen (32%) patients were seen in the age group of 11- 20 years. The highest number of cases 18(36%) was reported in June and July, which coincides with the monsoon in Mangalore. Among 50; 46 (92%) patients were associated with itching. There was a history of having worn new garments among 10(20%) patients before the onset of illness. The other precipitating factors include intake of the drug (NSAIDs) in 5(10%) patients and one (2%) patient both drug (NSAIDs) and new garment. Thirty-five (70%) patients presented with herald patch and the most common site of involvement was the trunk (40%), followed by upper (14%) and lower extremities (6%) The distribution of secondary eruptions mainly involved the trunk 47(94%), followed by trunk and extremities 19(38%) and trunk, neck and extremities 15(30%) and 6(12%) patients had on the face and trunk. In 29(58%) cases the secondary eruptions appeared in the first week after the appearance of the herald patch. Classical pityriasis rosea (62%) was the commonest morphological type, other types seen were atypical pityriasis rosea (38%) which include the absence of herald patch in 15 (30%), localized pityriasis rosea in 2(4%), and inverse pityriasis rosea and papulovesicular pityriasis rosea in 1(2%) each. (30)

In an analytical study done at Coimbatore medical college Hospital in south India, out of 100 patients 27(27%)were female 73(73%) were males, and maximum incidence was noted in the age group between 11-30 years(53%) within the range of 3-68 years old age. Prodromal illness before the onset of rash was reported by 8 patients(8%), of whom 1 had fever alone,1 had fever with a history of jaundice, and 6 had an upper respiratory infection. The itching was absent in 51 patients.49 patients(49%) had itching of whom most 46% had mild itching,1% moderate, and 2%had severe itching. Herald patch was present in 82 cases and absent in 18 cases. Herald patch was seen to occur more frequently over the trunk (45) followed upper limb and thigh. Classical PR seen in 45% and 55% atypical morphology and/or atypical distribution were observed. Classical distribution of secondary lesion seen in 79 patients of whom distal limb involvement seen in 6 patients, face involvement of in another 6 patients and face and palm and sole involvement in 2 patients. No mucous membrane lesion was observed. (31)

From 100 studied patients of Pityriasis Rosea, the commonest age group affected were 11-30 years, with a male to female ratio of 2.1: 1. The most common type was classical Pityriasis Rosea. Trunk and extremities were the most common sites of lesions. Most cases were seen during the cooler part of the year. (16)

A prospective study was conducted at the department of dermatology of tertiary care hospital and Out of 79 patients studied, the majority were from 11-20 years age group 33 (41.8%) followed by27.8% from 21-30 years age group. The mean age of the study population was found to be

21.3±6.4 years there were 51 males (64.6%) and 28 females (34.6%). Majority of males and females

Wherefrom 11-20 years age group 45.1% and 35.7% respectively. Commonly observed prodromal symptoms were URTI (25.3%) and fever (17.7%). Least observed were joint pain in 3.8%, headache in 2.5%, and lymphadenopathy in 1.3%. (19)

Herald patch in this study was observed in 59 patients. Herald patch was seen on the trunk in the majority of patients 36 (61%) followed by 18.6% cases on upper extremity and neck (8.5%). The rash observed in most of the patients was typical (60.8%). In 20.3% it was papular and in 13.9% it was eczematous. (19)

In a cross-section study done in Ouagadougou, Burkina Faso secondary schools, thirty-six cases of PR were observed (0.6 p.100). A typical eruption was often observed in 86.1 p.100 of cases. Pruritus was observed with an inaugural lesion(61.1 p.100)predominantly on the upper limbs(54.6 p.100)and trunk(31.8 p.100), measuring 1-3cm. A typical second eruption was found in most cases, situated on the trunk(75 p.100), distal portions of the limbs(64.4 p.100), proximal portions of the limbs(33.3 p.100), and neck(30.5 p 1 100). the eruption evolved for 1 week to 1 month in most cases(61 p.100). (18)

Coming to study done in Kano, Nigeria found that out of 1,528 patients seen over the 12 months of the study period, 56 patients had PR out of which 23(41.1%) were male, and 33(58%) were females with a ratio of M: F=1:1.4. PR, accounted for 3.6% of all dermatology out-patient visits in Kano the patients' ages ranged from 6 years to 55 years with the majority in the age range of 11-20 years. the peak month of incidence was January in which a quarter(21%) of the patients were seen. Only 5(8.9%) patients had prodromal symptoms preceding the onset of rash. Herald patch, which was located mainly on the trunk, was present in 45(80%) of patients. Secondary eruptions appear within 7 days after herald patch in 69% and typical Christmas tree pattern of distribution along the line of skin cleavage in 70% of the patients. Approximately ¾(73%) of patients had complete resolution of the rash by the 4th week. (7)

In another study done in Nigeria Lagos university teaching hospital out of 11,535 patients, 427 (3.7%) was diagnosed with PR. It was seen predominately in persons between the age of 10 and 29(255 patients—59.7%) with a male to female ratio of 1:1.55. (8)

5 years study of the incidence of pityriasis rosea among dermatologic outpatients was conducted at the Lagos University Teaching Hospital, Nigeria from 1980-1984, 352 patients with pityriasis rosea were seen. The average annual incidence was 4.8 per 100 dermatologic patients. Women predominated by a margin of 1.2:1.0. The age ranged from 4- 44 years, with a peak in the 10-14 age group. Pityriasis rosea was seen all year round but with a peak during the early part of the rainy season. (24)

A study conducted in a private skin clinic in Khartoum, Sudan from March 1980 to March 1981 showed out of 7,425 patients seen, 81(1.09%) had pityriasis rosea. Of 81 patients, 32 were men and 49 were women, the age range from 6 to 30 years accounts for 75%. The typical, oval, scaly lesion predominated, constituting 68 of the total number. Three showed circinate lesions (negative for mycelia), two were psoriasiform, and four simulated annular eczemas but had other features to suggest a diagnosis of pityriasis rosea. No vesicular variety was encountered. No mucous membrane lesions were seen. The itching was slight or absent in 71 cases, severe in three, and unknown in seven. Sixty-eight cases showed the classical bathing suit distribution. Thirteen were atypical. In one of these 13 cases, the lesions extended distally to cover the forearms and legs; one case (aged 2) showed lesions on the face. In ten cases, the condition was more florid distally than centrally. (25)

3. OBJECTIVE

3.1 GENERAL OBJECTIVE

To assess the magnitude of pityriasis rosea from medical records of patients who attended the department of dermatovenerology at ALERT center Addis Ababa Ethiopia from 2018-2020

3.2 SPECIFIC OBJECTIVE

3.2.1 To assess the sociodemographic characteristics of patients diagnosed with pityriasis rosea

3.2.2 To assess seasonal variation among pityriasis rosea cases

3.2.3 To assess body site affected by pityriasis rosea

3.3.4 To assess the atypical presentation of pityriasis rosea

3.3.5 To assess prodromal symptoms in patients diagnosed with pityriasis rosea

4.METHODOLOGY

4.1 STUDY AREA

This study will be conducted in ALERT hospital, Addis Ababa Ethiopia, Which is one of the referral hospitals in Ethiopia specializing in leprosy, it was originally the All Africa Leprosy Rehabilitation and Training Center, but the official name is now expanded to include tuberculosis: All Africa Leprosy, Tuberculosis and Rehabilitation Training Centre. ALERT is the continuation and expansion of the leprosy hospital originally built by Dr. Thomas Lambie in 1922, which was later named the Princess Zenebe Werk Hospital.

The hospital currently provides a wide range of services in the various departments including Dermatovenereology, Ophthalmology, Internal medicine, Pediatrics, Trauma, Gynecology and obstetrics, ART, Orthopedics, Plastic surgery, but it is well known as a referral center for skin disease from all over the country

4.2 STUDY DESIGN

Hospital-based Retrospective descriptive study

4.3 SOURCE POPULATION

All medical records of patients seen at ALERT center dermatology clinics from January 2018 to December 2020

4.4 STUDY POPULATION

All medical records of patients diagnosed with pityriasis rosea at ALERT center Dermatovenereology clinics between January 2018 to December 2020

4.5 SAMPLING AND SAMPLE SIZE CALCULATION

Data was collected from all Medical Records of patients diagnosed with pityriasis rosea at ALERT center Dermatovenereology OPD between January 2018 to December 2020

4.6 STUDY PERIOD

May-August 2021

4.7 INCLUSION CRITERIA

All new medical records of patients seen at ALERT center from January 2018- December 2020 were included in this study.

4.8 EXCLUSION CRITERIA

Medical records of follow-up patients and patients

4.9 VARIABLES

4.9.1 DEPENDENT VARIABLES

- Magnitude of Pityriasis Rosea

4.9.2 INDEPENDENT VARIABLES

- Age, Sex, Residence/region, Lesions duration and distribution, Month of presentation, Atypical presentation, Prodromal symptoms

4.10 OPERATIONAL DEFINITION

PITYRIASIS ROSEA: diagnosed clinically or/and histopathological by physician

HERALD PATCH: described by physician as single large erythematous plaque or reported by the patient as single large primary lesion

ATYPICAL PR: when the rash has atypical morphology (papule, vesicle, urticated plaque, purpura) unusual distribution (axilla, acral, localized, unilateral) herald patch with (solitary, multiple, absent) ,prolonged duration

4.11 ETHICAL CONSIDERATION

Data collection was commenced after ethical clearance was obtained from the ethical review committee of Addis Ababa University, College of public health. The letter of cooperation was submitted to the clinical director of ALERT center. Information obtained from the data was only be used for this research and confidentiality of information was kept for all patients.

4.12 DATA COLLECTION AND ANALYSIS

Data was collected from the dermatology HMIS registration book and medical records at ALERT. The data was filled on a prepared data extraction format and analyzed by descriptive statistics using version 25 SPSS software program.

4.13 DATA QUALITY ASSURANCE

The completeness and consistency of this research was be supervised by the investigator during the data collection process.

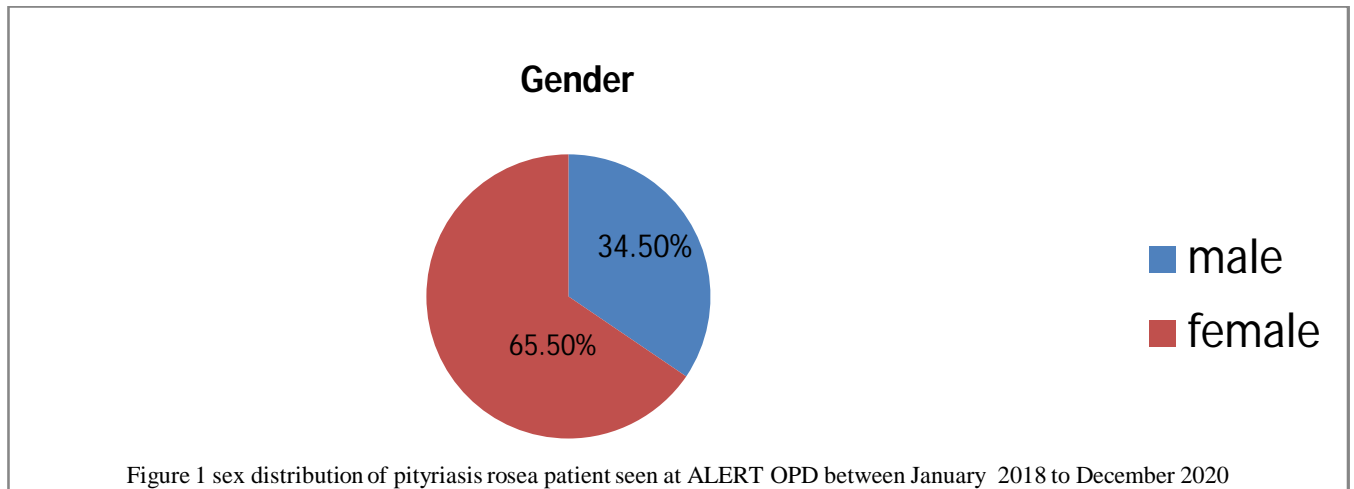
4.14 DISSEMINATION PLAN

The study result will be submitted to the AAU, CHS, SOM Department of Dermatovenerology and ALERT center

5- RESULT

5.1 SOCIODEMOGRAPHIC CHARACTERISTICS

From the year January 2018- December 2020, a total of 57,436 new dermatology cases were seen at ALERT OPD out of 148 (0.26%) of them diagnosed with pityriasis rosea 98% was diagnosed clinically and 2% by clinical and histopathology . Among this 51(34.5%) were males and 97(65.5%) were females; the male to female ratio was 1:1.9.



The mean age at presentation was 19.48 with a range of 1-46 years; A majority of them were in the 3rd and 2nd decade with 58(39.2%) and 52(35.1%) frequency respectively

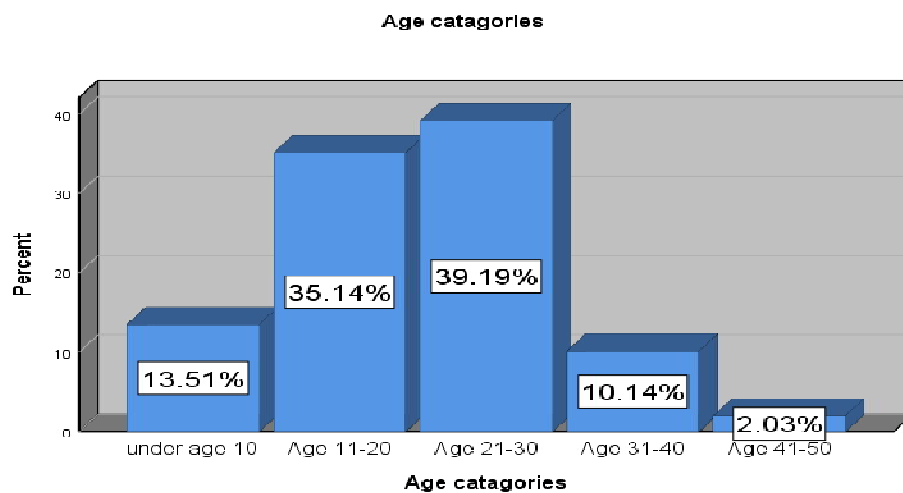


Figure 2 Age distribution of pityriasis rosea patient seen at ALERT OPD between 2018-2020

5.2 CLINICAL FEATURE

Cases were maximum between January to June and minimum from August to September. Forty-eight(53.3%) of the patients were present with in weeks most of them within 1-2 weeks followed by months, thirty-nine (43.3%) and days, three(3.3%).

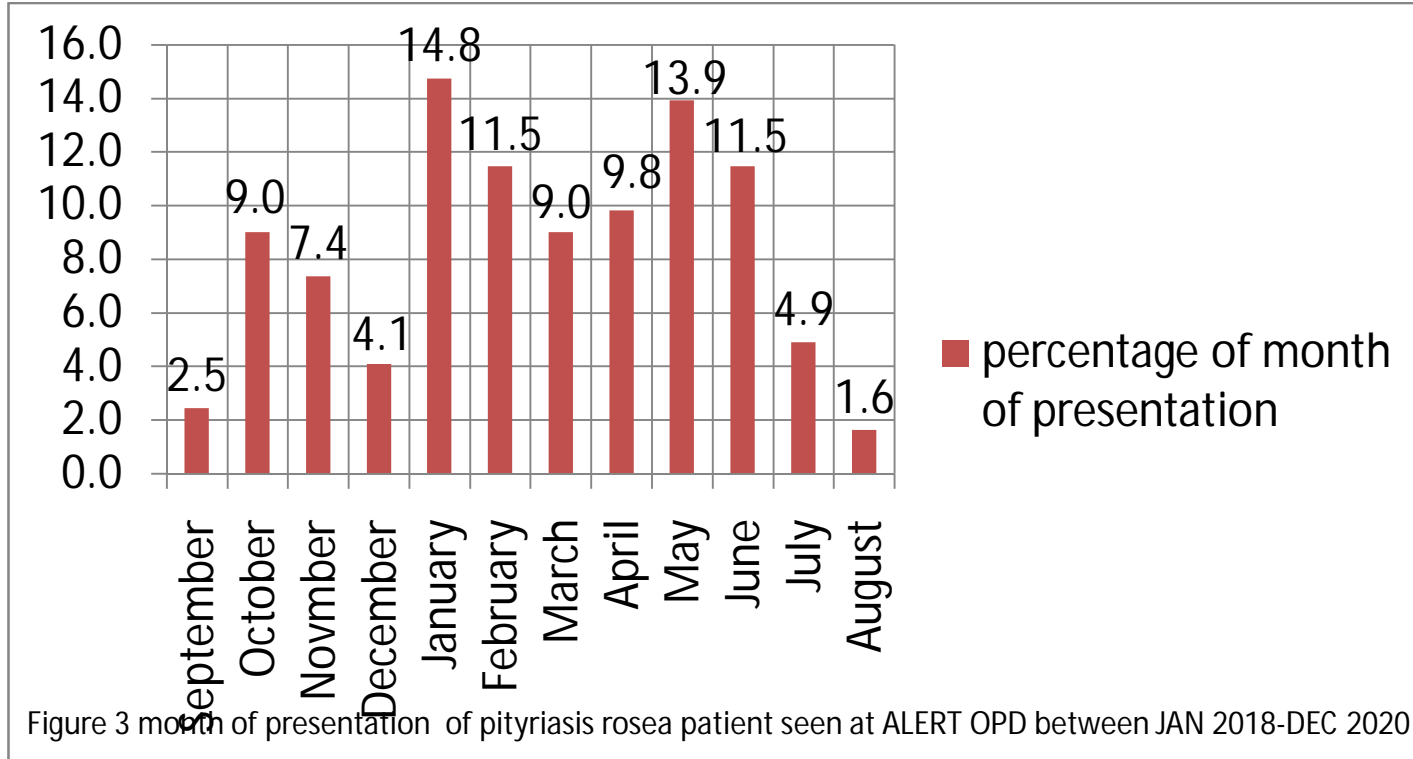
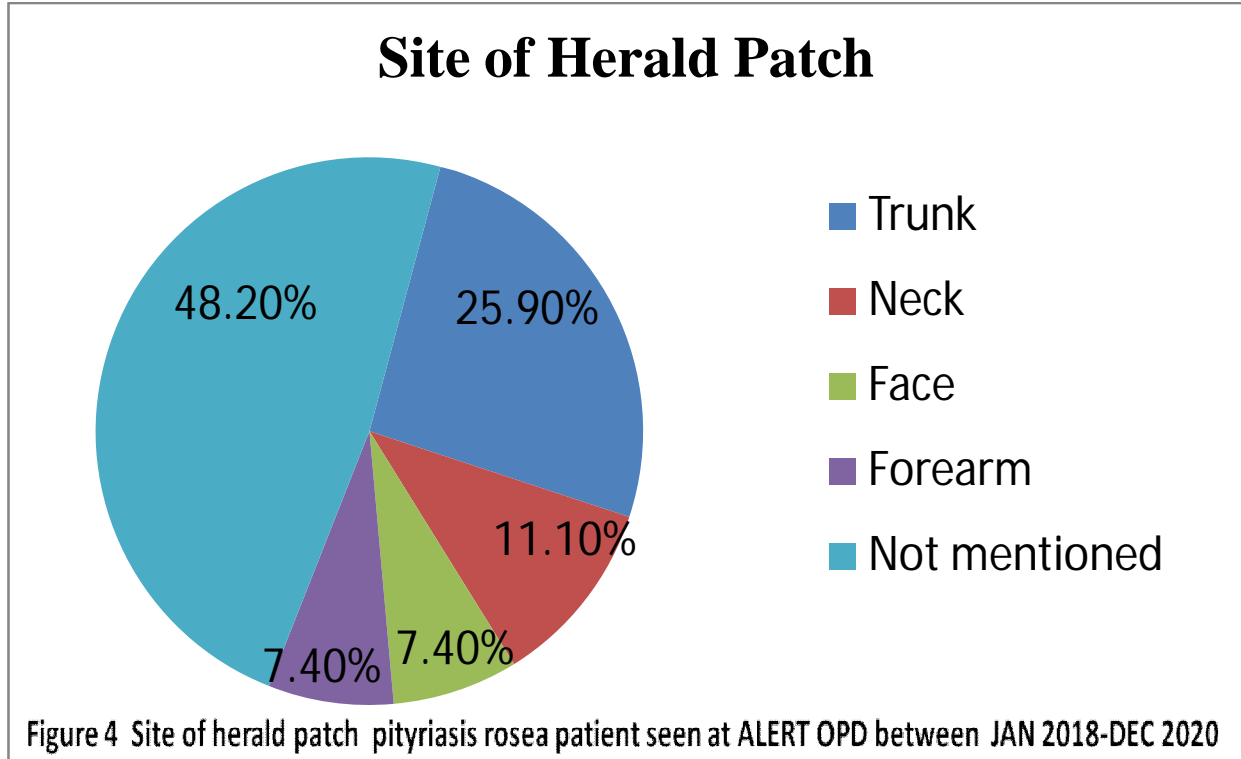


Table 1 Duration of the lesion of pityriasis rosea patient seen at ALERT OPD between JAN - 2018-DEC 2020

Duration of lesions	Number of Duration						total
	1	2	3	4	5	8	
Days	-	-	2	-	1	-	3
Weeks	17	25	6	-	-	-	48
Months	24	8	3	3	-	1	39
Total	41	33	11	3	1	1	90

Herald patch was present in 27(30%) of the patients and the commonest site was on the trunk. Itching was present in 70 (77.7%)patients from 90 patients . It was mild in 63(70%),moderate in 4(4.4%) and severe in 3(3.3%) patients.



The commonest affected body site was trunk 26 (28.9%) followed by trunk,armand thigh 20(22.2%).mucosal lesion was not mentioned at all.atypical presentation occur in 14(15.5%) of which,atypical morphology 4 patients(4.4%),atypical site 6(6.65%),double herald patch 1(1.1%) persistant PR 3(3.35%).

Table 2 Affected body site of pityriasis rosea patient seen at ALERT OPD between JAN 2018-DEC 2020

Affected body site	Frequency	Percentage
Face	3	3.3%
Neck	1	1.1%
Trunk	26	28.9%
Thigh	1	1.1%
Leg	2	2.2%
Neck and trunk	11	12.2%
Neck ,Trunk and Thigh	5	5.6%
Face, Neck and Trunk	6	6.7%
Trunk, Arm and Thigh	20	22.2%
Face, Trunk, Forearm, thigh	2	2.2%
Trunk and Thigh	5	5.6%

Trunk and Forearm	5	5.6%
Face and Trunk	3	3.3%
Missing	58	

Table 3 Atypical presentation of pityriasis rosea patient seen at ALERT OPD between JAN 2018-DEC 2020

Atypical presentation		Frequency	percentage
morphology	papular	2	2.2%
	Urticated plaque	1	1.1%
	eczematous	1	1.1%
Site	Face	3	3.35%
	Neck	1	1.1%
	Leg	2	2.2%
Herald patch	Double herald patch	1	1.1%
Duration	Persistent	3	3.35%
Total		14	15.5%

Associated Itching was present in 70(77.7%) patients out of 90. It was mild in 63(70%) ,moderate in 4(4.4%) and severe in 3(3.3%) patients .

6 : DISCUSSION

This study was conducted to assess the magnitude of pityriasis rosea patients seen at ALERT center Addis Ababa, Ethiopia. This study found that the incidence of pityriasis rosea is 0.26% ,where as cross-sectional study in secondary school in burkinafaso showed 0.6%.

Generally, PR is very rare in infancy and the elderly.^[31]the youngest patient in this study presented at 12 months while the oldest was 46 years old with the mean age at presentation being 19.48 years which corresponds to the study done in India with a mean of 20.32 (range 3-46 yr) .^[9,6] In this study peak incidence was 3rd decade, which is consistent with Singapore study in .^[29]Both sexes are equally susceptible according to some authors, while others observed a male predominance.^[5,26,29,31]A female preponderance (65.5%) reported in this study agrees with other published data.^[2,4,8,14,28,32]

Prodromal illnesses were seen in 11 patients, similar to that seen in the literature.^[6]

Indian [30] and Nigerian study [7] reported Herald patch was present in 70% and 80% of cases. In this study 29(32.2%) cases present with herald patch. the lowest percentage could be attributed to a lack of notice by patients and physician . But from those who had herald patch commonest site involved was the trunk which is comparable to the above study.^[30,7]

According to literature, pruritus is mild to moderate 50%, severe 25%, absent in 25%.^[32]In this study, 70% of patients had mild itching, 4.4% moderate, and 3.3% severe itching. this result is close to the finding of another study.^[31]

Study done Karnataka, India showed trunk was the commonest affected body site 94% followed by trunk and extremities which is comparable the current study.^[30]

In study done madras medical college, chennai, India showed 1 patient had papular PR, 3 patients had lesions over the face and 1 patient had double herald patch.^[27]

7: CONCLUSION AND RECOMMENDATION

7.1 Conclusion

Compared to other studies this study showed almost comparable magnitude ,sex,age distribution and atypical presentation of pityriasis rosea

7.2 Recommendation

- For the ALERT center to improve the completeness of the chart
- Mucus membrane should be examined in patients suspected of Pityriasis rosea
- Both hospital based and nation wide prospective studies should conducted on the subject

8 : LIMITATION OF STUDY

Absence of important clinical information from medical records

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QUESTIONNAIRE

Retrospective data collection form

Data Collecting Format on magnitude of pityriasis rosea in ALERT hospital dermatology OPD for the past three years.

1. Date: ____/____/____
2. Card no: _____
3. Name of health facility: ALERT
4. Name of data collector: _____

PART 1: Socio-demographic status of the patient

1. Age _____
2. Sex: A) Male B) Female
3. address _____

PART 2: clinical feature

4. duration of lesion: A)days B) weeks C)months
4.1—specify the number_____
- 5.Month of presentation
A.)September B) October C) November D) December E) January F)
February G)March H)April I)May J)June K)July L)August
6. Affected body sites : A)head B)neck C)trunk D) Arm E)forearm F)thigh
G)leg H) other specify
7. herald patch : A)yes B)no
8. if the above answer is yes duration between herald patch and other rash :
A)days B)weeks C)month
8.1 specify the number _____
- 9)prodromal symptom :
9.1)Fever :A)yes B)no
9.2)Sore throat: A)yes B)no
9.3)Loss of appetite:A)yes B)no
- 10)mucosal lesion: A)yes B)no
- 11)if yes:A)ulceration B)macules C)plaques D)punctate hemorrhage other

- 12)Itching A)no B)Mild C)moderate D)sever
- 13)Atypical presentation
A)papular B. purpura C. vesicle D. urticated plaque
- 14)diagnosis made by A)clinical B)histopathology