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IMPETIGO PROFILE IN PEDIATRICS IN ALMAFRAQ

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ABSTRACT

Objectives: to present the profile of impetigo in children in Almafraq. **Method** : All patients below the age of 14 years that were seen in outpatient clinics in King Talal military hospital in Almafraq with complaint of skin rash, during time period between 1 January, 2018 and 31 December, 2018, were included in our observational study and were examined for the diagnosis of Impetigo. Patients were divided into three groups (according to age) : group 1: birth -5 years, group 2 : 5-9 years and group 3 : 9-14 years. **Results**: A total of about 39000 children were seen in outpatient clinics for various complaints and problems during the study period. 908 cases of impetigo were reported. Impetigo was higher in age group II : age 5-9 years followed by group III: 9-14 years. The incidence of impetigo among children seen in clinics was 2.3 % and was higher in males. Commonest manifestation was blisters or sores on the face, neck, hands and diaper area. **Conclusion** : Impetigo is a common dermatological problem in pediatric age group in Almafraq. Contributing factors to this problem are: poor hygiene, low socio-economic class, presence of already irritated skin by problems such as eczema and insect bites and overcrowding due to presence of Syrian refugee.

KEYWORDS: Impetigo, Children, Almafraq.

INTRODUCTION

Impetigo (also known as pyoderma), is superficial skin disease that commonly affects children especially below the age of 5 years.[1]

Impetigo is a common dermatological disease that managed by both pediatricians and dermatologists. It is a highly contagious bacterial infection, it can be spread to anyone who comes into contact with infected skin or other items (such as clothing, towels, and bed linens) that have been touched by infected skin. And because impetigo may itch, children can spread the infection by scratching it and then touching other parts of their body.[2] It is bacterial skin infection and almost always caused by *Staphylococcus aureus* or *Strptococci*, or a combination of both. Major predisposing factors in contracting this condition seem to be crowded populations, poor hygiene, nasal and perineal colonization, and any skin problem that lead to disruption of skin barrier function (such as eczema, insect bite, etc.).[3]

There are two different types of impetigo : **non-bullous** (also known as impetigo contagiosa or pyoderma)[4] which is mainly caused by *Staphylococcus aureus* and *Streptococcus* pyogenes[5] and **bullous** type which is almost exclusively caused by strains of S. aureus.[6]

The purpose of this study is to present data about impetigo in children in Almafraq seen in pediatrics and dermatology clinics in king Talal military hospital.

Impetigo may affect skin anywhere on the body but commonly occurs around the nose and mouth, hands, and forearms and in young children, the diaper area.[7]

METHODS

All children attending the pediatric or dermatology outpatient clinics in king Talal military hospital in almafraq during the period between 1 January, 2018 and 31 December, 2018 with skin rash were included in this prospective study. Patients were divided into three age groups. Group I: age 0-5 years. Group II: age 5-9 years and group III: age 9-14 years.

The diagnosis was based on the appearance of the skin lesions. In some occasions it may need to take a sample of fluid from blisters to make or confirm the diagnosis.

Clinical symptoms were defined as red sores dried and leave yellow crusts, fluid-filled blisters, itchy skin, and swollen lymph nodes.The diagnosis was made based on the patient's history combined with findings on physical examination and laboratory data. This study used the clinical findings on physical examination (type of skin lesions, distribution of skin rash and presence of recent injuries or irritation to the skin), sometimes followed by microscopic test to confirm the diagnosis.

Children with non-bullous impetigo commonly have multiple coalescing lesions on their face (perioral), perianal area and extremities or areas with a break in the natural skin defense barriers. The initial lesions are small vesicles or pustules that rupture and become a honey-colored crust with a moist erythematous base.

Bullous impetigo is less contagious than the non-bullous type. It tends to affect the face, extremities, axillae, trunck and perianal region of neonates but older children and adults can also be infected. Lesions are fragile thin-roofed, flaccid, and transparent bullae with a clear, yellow fluid that turns cloudy and dark yellow.

RESULTS

From a total of about 39000 children who were seen and treated for different diseases. A 3583 patients presented with different skin manifestations (isolated or in association with other problems), 1530 patients presented with dermatitis (atopic 960, napkin 570), 844 patients with viral exanthems due to different viral causative organisms (120 of them diagnosed with chickenpox), 81 patients with scabies , 105 patients with Insect bite reaction (papular urticaria), 98 patients with infected eczema, and17 patients presented with picture of scarlet fever. Distribution by age groups illustrated in table 1. 908 patients were diagnosed by clinical examination and positive microscopic test as impetigo, table 2.

All impetigo patients presented with main complain of skin blisters, additional complains were itching, skin infections, scratch marks on skins. Six hundred and ten (67%) patients presented with bullous lesions and 298 (33%) of non- bullous lesions.

Commonest site for the impetigo skin lesion was face in 324 (35.7%) patients, followed by neck 236 (26%) patients, extremities 143 (15.8%) patients, axillae 126 (13.9%) patients and diaper area 77 (8.5%) patients, table 3.

Table. 1. Demographics.

Gender/Age Group	0-5	5-9	9-14	Total
male	61	368	165	594
female	55	166	93	314
Total	116	534	258	908

Table. 2.Common skin lesions seen in the clinic.

Clinical manifestation	Number	%
Napkin dermatitis	570	15.9
Scabies	81	2.2
Viral exanthems	844	23.7
Atopic dermatitis	960	26.8
Insect bite	105	2.9
Infected eczema	98	2.7
Scarlet fever	17	0.5
Impetigo	908	25.3
Total	3583	100%

Table. 3.Distribution of skin lesion.

Site of skin lesion	Number of lesion (%)
Face	324 (35.7%)
Neck	237 (26%)
Extremities	143 (15.8%)
Axillae	126 (13.9%)
Diaper area	78 (8.5%)
Total	908 (100%)

DISCUSSION

Impetigo is a highly contagious bacterial skin disease. The condition of 'impetigo' is caused by an acute bacterial infection of the superficial layers of the epidermis is primarily caused by S. aureus or S. pyogenes. It is an exceedingly common disease of world -wide distribution. It is endemic in many developing countries.[8]

Although impetigo is more common in overcrowded areas, it can affect any individual irrespective of social status, personal hygiene, gender, age or ethnic origin. It is primarily characterized by blisters and itching. Scratching of these areas may lead to spread of the bacterial infection. A recent review of the prevalence of childhood skin diseases in developing tropical and subtropical countries concluded that the prevalence of impetigo is in the range of 1–2%.[1,9]

Impetigo is easy to diagnose depending on clinical picture. The site, type of skin lesions and severity are all useful in the diagnosis. The classical lesions of impetigo presents as multiple coalescing lesions on the face and extremities or areas with a break in the skin. In our study the most frequent symptom was skin blisters followed by itching.[4,10]

In infants and young children, impetigo often affects the face, neck, axillae, extremities, and diaper area. Widespread eczematised erythema is common, particularly on the trunk, and is sometimes more troublesome than are lesions at typical sites. And also study showed that most common affected age group is between 5-9 years with male predominance.[2,9]

The factors generally thought to explain the high prevalence and incidence of common skin infections in developing countries are poverty related and include: a low level of hygiene, climatic factors; and overcrowding living conditions.

Impetigo in our study is common and frequent because of overcrowded living conditions because of Syrian refugee, low socioeconomic condition and poor hygiene. But it's less common than in other countries and communities.

CONCLUSION

Impetigo is a common health problem among children in Almafraq ; the disease can be reduced by improving socioeconomic, hygienic conditions and by

implementing a proper system of social education, as well as by promoting more efficient health service.Work needs to continue on addressing these all-important factors to bring about long-term change.

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