Prevalence of skin diseases among primary school children in Ber Al-Abd District of North Sinai

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Presented by
Nasr Allah Hussein Hussein
(M.B. B.Ch.)
Cairo University

Supervised by
Prof. Dr. Samia Mohamed Esmat
Professor of Dermatology
Faculty of Medicine
Cairo University

Dr. Mohamed Hussein Medhat El-Komy
Lecturer of Dermatology
Faculty of Medicine
Cairo University

Dr. Allaa Hammad Abou-Zeid
Lecturer of Public Health
Faculty of Medicine
Cairo University

Faculty of Medicine
Cairo University
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{بِسْمِ اللهِ الرَّحْمنِ الرَّحِيمِ }

قَالُواْ سُبْحَانَكَ لاَ عِلْمَ لَنَا إِلاَّ مَا عَلَّمْتَنَا إِنَّكَ أَنتَ الْعَلِيمُ الْحَكِيمُ

{صَدَقَ اللَّهُ الْعَظِيمِ }

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Introduction & Aim of the work

Skin diseases occur all over the world in significant levels. They have been identified as a public health problem in developing countries. A study in Tanzania showed 300 out of l114 individuals (26.9%) have had significant skin diseases ***(Gibbs, 1996).*** Another study done in Ethiopia showed 90 out of 112 school children (80.4%) to have one or more skin diseases ***(Figueroa et al., 1996).***

Distribution of skin diseases differs from country to country and even city to city. Some factors like genetic, environment, race, occupation, nutrition and habits can influence the pattern of skin diseases ***(Williams, 1994; Williams et al., 1994a; Chuang & Reisner, 1993).***

Many studies in developing countries have reported a high prevalence of transmissible skin infections, up to 50%-60% among school children ***(Acheampong et al., 1988; Dagnew & Erwin, 1991).***

Skin disorders are among the most frequently diagnosed conditions in school children in both developing and industrialized countries ***(Verhagen et al., 1968; Markkola et al., 1989; Dold et al., 1992; Huh et al., 1993; Aydemir et al., 1993).*** The school environment makes children vulnerable to cross-transmission of communicable skin diseases, which can then be passed on to family members ***(Shakkoury & Abu-wandy, 1999).***

Dermatological problems constitute at least 30% of all outpatient visits to a pediatrician and 30% of all visits to a dermatologist involve children ***(Thappa, 2002 and Federman et al., 2001).***

In Egypt, only a small number of studies had been carried out to detect the prevalence of skin diseases in the general population e.g. a study for prevalence of skin diseases in rural areas of Assiut governorate ***(Abdel-Hafez et al., 2003)*** and in rural area in El-Tall El-Kabir ***(El-Akhras et al., 1992)*** and An epidemiological study of dermatosis among school children in Qalyoubia Governorate ***(Baraka et al., 1999)***. After reviewing literatures we did not find any studies for prevalence of skin diseases in North Sinai .

Aim of the work:

The present study was undertaken to obtain information about the spectrum and prevalence of skin diseases among primary school children in Ber Al-Abd district in North Sinai as well as data about factors influencing the magnitude of prevalence. This would help to assess the distribution pattern of skin diseases in Ber Al-Abd district and suggest the need for certain interventions in this area. The data would provide basic information for future health programs in North Sinai.

Geography and Demography of Ber Al-Abd

Introduction

The governorate of North Sinai includes six districts which are Al-Arish, Ber Al-Abd, Sheikh Zowayyed, Rafah, Al-Hasana and Nikhel.

Location:

The governorate of North Sinai is located in the northern Sinai Peninsula in the north-east of the Arab Republic of Egypt between the two longitudes (34º, 32º) in the east and the two latitudes (29º, 31º) in the north. It is bordered from the north by the Mediterranean, from the south by a line extending from the corridor of Metla to Ras Al-Nakab, from the east by the political limiting of Egypt with Palestine, from the west by a line extending from the corridor of Metla in the south to Baloza in the north {**figure (1)**} ***(http://www.northsinai.gov.eg/page-a-1.htm).***

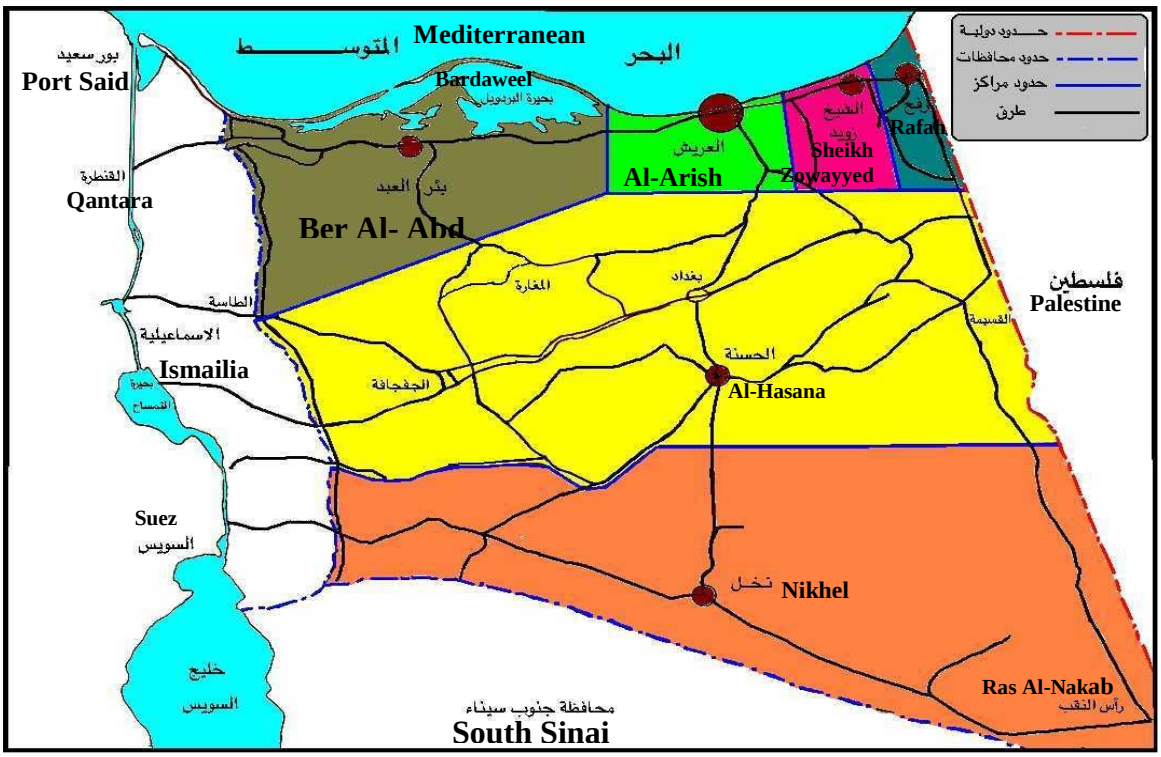

Figure (1): Map of North Sinai.

***Description of Sinai (terrain)*:**

Sinai's triangular-shaped terrain can be broken into three divisions, conspicuously graded as follows from north to south:

1. The vast "Northern Plains ", north of latitude 30^{o}.
2. Plateau lying between latitudes 30^{o} and 29^{o} .
3. Heights or Mountainous region, south of latitude 29^{o}.

Each of the above divisions is clearly different from the other in terms of terrain, natural components, climate and demographic activities and means of livelihood.

Northern Plains (Ber Al-Abd):

The northern coastal plain comprises several towns and demographic agglomerations, chief of which are Al-Arish, Ber Al-Abd, Sheikh Zowayyed, Rafah among others.

This division consists of a vast undulating plain extending from east Ismailia to Rafah along the Mediterranean coast, gradually tilting from Al-Teah Plateau down towards the Mediterranean. The plains abound in valleys, springs and rain-water - formed tributaries. Traditionally, this region has been the most populated area in Sinai.

The northern plains consist of four distinct sub-divisions: the northern coast line, a range of plains and valleys, a range of oval- shaped mountains and the inland plains.

The northern coast line consists of shallow- water coasts, mainly formed by accumulated alluvial deposits carried eastward from the Nile Delta by Mediterranean currents. Sinai's northern coast looks somehow alluvial,

with sporadic shallow pond marches, lagoons, swamps, salty patches and damp areas. They start with Port-Fouad saline, which lies at the top of Al-Tina triangle that once served as a plain for the old pulusian mouth of the Nile reaching up to the Mediterranean at Pulusium (currently Balloza). The plains further extend to Al-Bardaweel Lagoon and its western extension Al-Zaraneeq Lagoon which are both virtually connected.

Egypt's second largest lake, Al-Bardaweel Lagoon is 130 km long, extending from Al-Mohammadia east of Port-Said with a length of 35 km to the west up to Al-Arish with a length of 50 km. AL-Zaraneeq Lagoon is 60 km long and 3 km wide. Al-Bardaweel Lagoon is linked to the Mediterranean through a 100 m wide strait. In winter time, Al-Zaraneeq Lagoon is over flooded and both lagoons form one whole water surface. When the water level declines in summer Al-Zaraneeq lagoon looks again distinct from Al- Bardaweel. The latter is one of the most important sources of fish wealth in Sinai and Egypt in general

The plain range with an area of 8000 km² rises up to a maximum height of 200 m, vastly widening at the Suez Canal to the west and slightly narrowing in the middle. These plains form a natural extension of the Delta’s Eastern Desert.

Sand dunes in the north Sinai plains represent a natural rain-water reservoir and consequently a basic underpinning of economic development. These, together with the availability of rain water, have created a distinct pattern of Bedouin settlements around the sand dunes.

The range of oval-shaped mountains consists of limestone, sandy, oval, concave shaped heights lying immediately to the south of the plain range. These heights cover approximately 13,000 Km^2 rising up to 400-1000 m above sea level.

Amidst these heights there exist mountain corridors of major strategic importance as communication lines in addition to wells and springs. This is an area of exciting physical interloping, where every spot has a mountain, a valley and a well that has one and the same name. Most famous of these corridors are Metla and Al-Gadye (Capricorn). The former separates the area facing Suez from the body of Al-Teah plateau. The latter runs along dozens of kilometers between Mount Heetan on the south sometimes with a width of 10 m. This passage is the key access to Suez.

Inland plains, a triangular- shaped area of approximately 4000 km^2 rising up to 200-500 m above sea level, are located between the heights and oval- shaped mountains**.**

(http://www.sis.gov.eg/En/Tourism/famouscities/tourism/sinai/html/sinai03 .htm.)

Climate:

Sinai lies within the east Mediterranean coastal light humidity climatic region. It is divided into two relatively distinct sections; northern and southern.

In the north where our study area (Ber Al-Abd district) lies, the climate differs according to the four seasons of the year.

***Winter**:*

It is somewhat rainy unstable and temperate because of its presence near to the Mediterranean with an average of temperature ranges from a high of 20° C and a low of 7° C with rain falls more heavily on the coast and sharply dwindles towards the hinterland, with an average precipitation of 80 mm^3 - 100 mm^3 per annum with a maximum during December and January while winds are unsteady and often southerly between temperate and swift and its speed may reach 50km/hour while humidity is around 70% on the coast and 40% inside.

Spring:

It is unsteady with less degree than winter with Al-Khamaseen dust storms blowing with thunderous rain sometimes with an average of temperature ranges from a high of 26° C and a low of 13° C and in Al-Khamaseen dust storms high temperature may reach more than 40° C and rain is less than in winter but it may be thunderous and plentiful and winds are unsteady and often northerly to north easterly change to south westerly in morning with its speed increasing causing dust storms once or twice per month while humidity is 70% on the coast and 10% inside.

***Summer**:*

It is hot stable with absence of rain and clear sky except for depressed clouds in the morning with temperate temperature on the west of the coast and increase while moving inside with an average of temperature ranges from a high of 33° C and a low of 18° C and winds are northerly and north westerly between temperate and swift and sometimes may be activated in the noon with the gentle wind on the west of the coast while humidity 70% on the coast and 30% inside.