PREVALENCE OF SKIN DISEASES IN CHAK-36, UNION COUNCIL AHMED RAJO, TALUKA SHAHEED FAZIL RAO (GOLARCHI), DISTRICT BADIN, SINDH, PAKISTAN

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Abstract

An observational, analytical, and descriptive study was conducted at Chak - 36, Union Council Ahmed Rajo Taluka Shaheed Fazil Rao (Golarachi), District Badin during July 2011. Eight hundred cases were investigated. According to our survey 51.12% population of Chak - 36 was suffering from skin diseases. Among which the adult female (above 18 years of age) constituted the largest prevalent group (39.60%), followed by the female children (22.98%). Male adults and male children occupied more or less similar proportion of 19.32 and 18.09%, respectively. Scabies was the most prevalent disease (amongst 44.25% population), followed by Eczema (26.65% population) and ulcer (12.71% population). *Acne vulgaris* was largely amongst the adult females. Leishmaniasis was the least prevalent disease-amongst only 2.54% of the population.

Introduction

Many people experience a skin disease at some point in life, since skin is the body's largest organ and it rather remains exposed with greatly increased risk of becoming diseased or damaged. Hay *et al.* (1994) have disclosed that in developing countries skin diseases can affect more than 60% of the general population and usually are not well managed. Alma and Berisha, (2009) reported that genetic related disorders of the skin play an important role in manifesting different skin disorders. Bajaj *et al*. (2009), as regards to the pattern of skin disorders among adolescent female students at Hyderabad, Sindh, reported that Acne was the most common problem in Hyderabad. Skin diseases in our rural areas have not been in detail investigated. These areas due to their poverty and lack of awareness amongst the general masses led us to hypothesize a greater prevalence of skin diseases in rural places of Sindh. The prevalence of skin diseases in chak-36, union council Ahmed Rajo, Taluka Shaheed Fazil Rao (Golarchi), District Badin, Sindh, was investigated in our recent OPD at this place.

Materials and Methods

An observational, analytical, and descriptive study conducted at Chak 36 (GPS coordinates 24.322178, 68.325646), Union Council Ahmed Rajo Taluka Shaheed Fazil Rao (Golarachi), District Badin during July 2011. An OPD was arranged in Chak – 36 from July 8th to 10th 2011. During this OPD 800 patients were examined out of total population of this place around 1000. In 800 patients there was 300 female adult, 150 male adult, 190 female Children and 160 male children. The medicines were provided to them. A detailed history was taken from all the patients. Two translators for better communication were provided by Sindh Environment Protection Organization (SEPO**)**. The data was analyzed by using SPSS version 17.

Results and Discussions

The situation of skin diseases in Chak – 36, union council Ahmed Rajo, Taluka Shaheed Fazil Rao (Golarchi), District Badin is very critical. According to our survey, 51.12% population of Chak - 36 was suffering from skin diseases (Fig. 1). Among which the adult female (above 18 years of age) constituted the largest prevalent group (39.60%), followed by the female children (22.98%). Male adults and male children occupied more or less similar proportion of 19.32 and 18.09%, respectively (Table 1). Scabies was the most prevalent disease (amongst 44.25% population), followed by Eczema (26.65% population) and ulcer (12.71% population). *Acne vulgaris* was largely amongst the adult females. Leishmaniasis was the least prevalent disease -amongst only 2.54% of the population (Fig. 2).

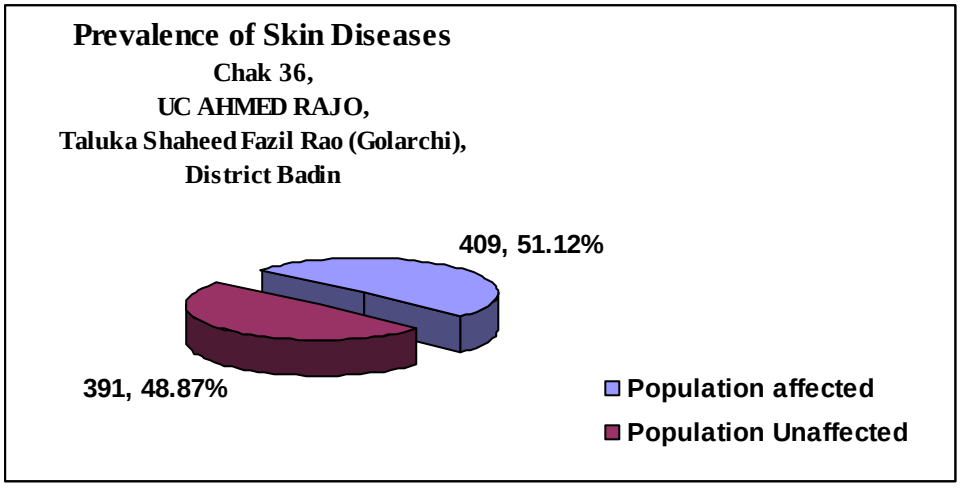

Fig.1. Skin diseases prevalence

Table 1. The number of patients suffering from various skin diseases (percentage in parenthesis)

Patients Gender Type	Types of Skin Diseases						Patients of Skin Diseases	Patients Having other Diseases
	Scabies	Leishmaniasis	Ulcers	Psoriasis	Eczema	Acne Vulgaris		
Female Adult	43 (26.54)	08 (4.94)	32 (19.75)	12 (7.41)	37 (22.84)	30 (18.52)	162	138
Male Adult	22 (27.85)	01 (1.27)	20 (25.32)	03 (3.79)	31 (36.24)	02 (2.54)	79	71
Female Child	70 (74.47)	Nil	Nil	01 (1.06)	21 (22.34)	02 (2.13)	94	96
Male Child	46 (62.16)	01 (1.95)	Nil	07 (9.46)	20 (27.03)	Nil	74	86

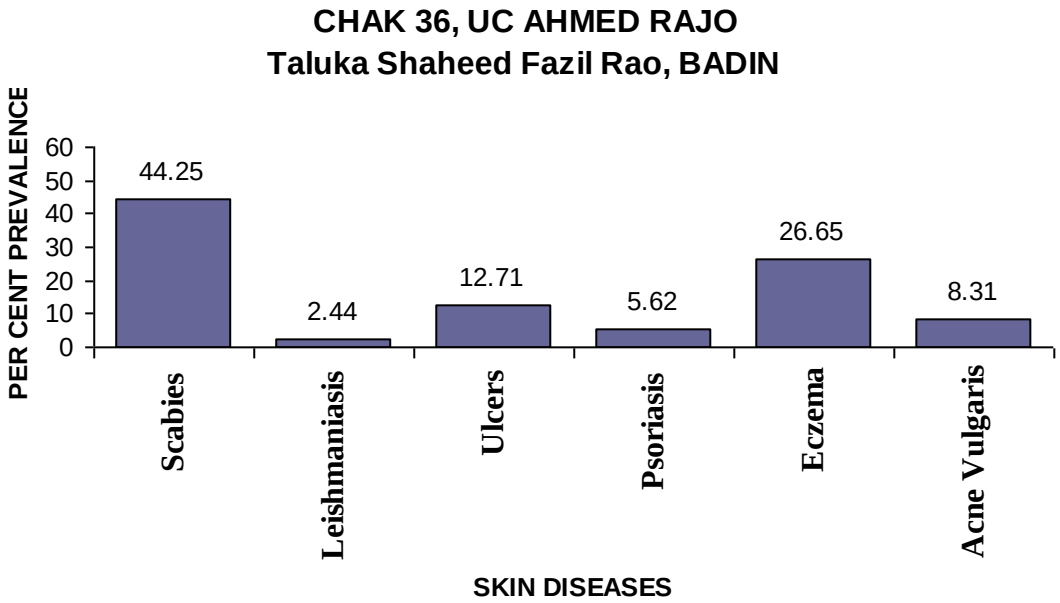

Fig. 2. Percent prevalence of skin diseases

Out of 409 skin-disease cases, during present studies, 181 patients were found to have scabies infection. It has been classified by the WHO as a water-related disease. It is caused by a tiny and usually not directly visible parasite. The disease may be transmitted from objects but is most often transmitted by direct skin-to-skin

contact. Initial infections require four to six weeks to become symptomatic because the symptoms are allergic. Their delay in onset is often mirrored by a significant delay in relief after the parasites have been eradicated. The crusted scabies, formerly known as Norwegian scabies, is a more severe form of the infection often associated with immunosuppressant. Of 181 patients who were suffering from Scabies, there were having 43 female adults, 22 male adults, 46 male and 70 female children i.e. scabies was highly prevalent in female children (Table 1).

Only 10 patients were found in Leishmaniasis which is a skin disease caused by protozoan parasites that belong to the genus *Leishmania* and is transmitted by the bite female phlebotomine of sand fly (Table 1). Most forms of the disease are transmissible only from animals but some can be spread between humans. During OPD, high prevalence was found in female adult as 8 patients having the symptoms of Leishmaniasis.

There were 52 cases of ulcer (Table 1). The high prevalence was found in female adults (32 patients) while in male adults only 20 children were suffering from ulcer which is a sore on the skin or a mucous membrane, accompanied by the disintegration of tissue. Ulcers can result in complete loss of the epidermis and often portions of the dermis and even subcutaneous fat. Skin ulcers appear as open craters, often round, with layers of skin that have eroded. The skin around the ulcer may be red, swollen, and tender. Patients may feel pain on the skin around the ulcer, and fluid may ooze from the ulcer. Ulcers develop in stages. In stage 1 the skin is red with soft underlying tissue. In the second stage the redness of the skin becomes more pronounced, swelling appears, and there may be some blisters and loss of outer skin layers. During the next stage, the skin may become necrotic down through the deep layers of skin, and the fat beneath the skin may become exposed and visible. In stage 4, deeper necrosis usually occurs, the fat underneath the skin is completely exposed, and the muscle may also become exposed. In the last two stages the sore may cause a deeper loss of fat and necrosis of the muscle. Although skin ulcers do not seem of great concern at a first glance, they are worrying conditions especially in people suffering from diabetes, as they are at risk of developing diabetic neuropathy. Ulcers may also appear on the cheeks, soft palate, the tongue, and on the inside of the lower lip. These ulcers usually last from 7 to 14 days and can be painful.

Psoriasis is an autoimmune disease that appears on the skin. High prevalence was found in female adults as 12 patients out of total of 23 patients. Seven male children, 03 male adults and only 01 female child were also suffering from this disease. Psoriasis occurs when the immune system mistakes the skin cells as a pathogen, and sends out faulty signals that speed up the growth cycle of skin cells. The cause of psoriasis is not fully understood, but it is believed to have a genetic component and local psoriatic changes can be triggered by an injury to the skin known as the Koebner phenomenon. The cause of psoriasis is not fully understood. There are two main hypotheses about the process that occurs in the development of the disease. The first considers psoriasis as primarily a disorder of excessive growth and reproduction of skin cells. The second hypothesis sees the disease as being an immune-mediated disorder in which the excessive reproduction of skin cells is secondary to factors produced by the immune system. Psoriasis is a fairly idiosyncratic disease. The majority of people's experience of psoriasis is one in which it may worsen or improve for no apparent reason. Psoriasis occurs more likely in dry skin than oily or well-moisturized skin, and specifically after an external skin injury such as a scratch or cut.

Eczema was prevalent 109 patients (37 female adults, 31 male adults, 21 female children and 20 male children) (Table 1). It is a form of dermatitis, or inflammation of the epidermis. The term eczema is broadly applied to a range of persistent skin conditions. These include dryness and recurring skin rashes that are characterized by one or more of these symptoms: redness, skin edema (swelling), itching and dryness, crusting, flaking, blistering, cracking, oozing, or bleeding. Areas of temporary skin discoloration may appear and are sometimes due to healed injuries. The cause of eczema is unknown but is presumed to be a combination of genetic and environmental factors.

During the studies, high prevalence of Acne was found in female adults (30 patients) (Table 1). Bajaj *et al.* (2009), have also reported Acne to be common amongst adolescent female students in Hyderabad (Sindh). Acne affects mostly skin with the dense population of sebaceous follicles; these areas include the face, the upper part of the chest, and the back. Acne occurs most commonly during adolescence, and often continues into adulthood. In adolescence, acne is usually caused by an increase in testosterone, which people of both genders accrue during puberty. Acne develops as a result of blockages in follicles. Hyperkeratinization and formation of a plug of keratin and sebum is the earliest change. Enlargement of sebaceous glands and an increase in sebum production occur with increased androgen (DHEA-S) production at adrenarche.

Masawe and Nsanzumuhire (1975) have reported that of 532 preschool children in Tanzania, scabies was found to be the most common skin disease (31%); primary pyodermia was present in 7% cases, while fungal infections occurred in 2.4% cases. Dermatoses presented at 57.3% in out-patients and 45% in in-patients. Ruiz *et al.* (1977) reported in his study that parasitic dermatoses and viral and bacterial skin disorders are most common. Papullar urticaria is reported in 16.3%, atopic dermatitis 12.9%, scabies 10.4%, benign warts 8.4%, impetigo 6.8%, pityriasis alba 6.6% and other diseases around 2% of cases. Wilkin *et al.* (1994) stated that Rosacea is a chronic cutaneous disorder affecting primarily the convexities of the central face (cheek, nose,

chin, and central forehead). It is a syndrome or typology encompassing various combinations of signs and symptoms. In most cases, some rather than all of these features appear in any given patient, and they are often characterized by remissions and exacerbations.

Lucky (1995) has reported that drinking milk and consuming dairy products from pregnant cows exposes us to the hormones produced by the cows' pregnancy, hormones that we were not designed to consume during our teenage and adult years. It is no secret that teenagers' acne closely parallels hormonal activity and the biochemical links between hormones and pilosebaceous activity. Nanda *et al.* (1999) have reported that a skin disease are common in children skin of infants, children, adults and the elderly, with its anatomic and physiologic characteristics, acts as a barrier for different environment insects, and undergoes certain changes in each period during human life. Robin *et al*. (1999) stated that everyone in the community will suffer from at least one skin condition during their lifetime.

The conditions such as warts and acne are almost universal at certain ages. However, whether people recognize or report many of these common conditions as disease will vary according to the area affected and the severity of the problem. Fung and Lo (2000) stated that from the beginning of human life skin changes occur and as a child grows the skin is exposed to several irritating and infections agents. Timothy (2003) stated that a corn or callus is a thickening of the outer layer of skin on foot. Corns usually grow on top of the feet, often at a toe joint. Calluses spread on the bottom of the foot or on the outer edge of a toe or the heel. Kumar *et al.* (2004) published a retrospective epidemiological study including 419 children under the age of 14, in which males of age 6 - 10 years and females 10 – 14 years were mostly affected by psoriasis. Chen *et al.* (2008) stated that skin diseases in children, although not life – threatening, may be particularly distressing and chronic skin diseases may have a several psychological impact. Alma *et al.* (2009) reported that genetic related disorders of the skin play an important role in manifesting different skin disorders. Bajaj *et al*. (2009) in his study regarding Pattern of skin disorders among adolescent female students at Hyderabad, Sindh, stated that Acne was the most common problem reported in study (804, 59.5%) area. Face was the most frequent site affected (781, 97.1%) followed by trunk (23, 2.9%). Very severe acne (nodulocystic variety) was noted in 3 patients only. Fleishman *et al.* (2010) stated that Follicular eruptions (Rash) tend to occur in many people who take EGFR-blocking drugs. Although the rash usually appears about one week to 10 days after starting treatment, it can occur as late as six weeks after the first dose. Over time, the rash can come and go; it may go away without treatment. In some cases follicular eruptions become so severe; the patient has to stop taking the medication. In mild cases, the rash can be treated with creams applied directly to the skin.

Conclusions

Skin disease is a major public health problem and a leading cause of chronic Scabies, Leishmaniasis, Ulcers, Psoriasis, Eczema and Acne vulgaris in village, Chak - 36, Union Council Ahmed Rajo, Taluka Shaheed Fazil Rao, District Badin, Sindh. Public awareness programmes in this respect must be conducted that disease transmission to others can occur through contact with their blood, body fluids, non – intact skin (including rashes), mucous membranes, and that they should take precautions against such possible exposures.

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