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Clinico-epidemiological study of skin warts among patients attending Tikrit teaching hospital.

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Absract

Back ground : Warts are benign epidermal neoplasms that are caused by human papilloma virus (HPVs). Warts are transmitted by touch; it may occur on adjacent toes ("kissing lesions"), or at sites of trauma at the hands, in periungual regions as a result of nail biting, and on plantar surface. There are different clinical types as Common warts (Verruca vulgaris) begin as smooth, flesh-coloured papules and evolve into dome-shaped, gray-brown, hyperkeratotic growths with black dots on the surface (thrombosed capillaries).The hands are the most commonly involved areas, but they may be found on any skin surface. Patients and methods: One hundred and twenty four (124) patients with warts were encountered in the outpatient clinic of dermatology at Tikrit Teaching Hospital from October 2008 to May 2009.Patients were examined by dermatologists and medical history was taken using special questionnaire. Results: from 124 patients , 68 (54.8%) were males. Preschool and primary school children were the most age group affected (41%). Most frequent of wart cases were from urban (62%). The hands was the most frequent site in the body affected (24%). The most frequent wart type was a common wart (54.8%). Regarding the associated diseases atopic dermatitis was the most frequent (12%). Conclusion: The most frequent wart type was a common wart (54.8%)and The hands was the most frequent site in the body affected(24%).

دراسة سريرية وبائية حول ثالول الجلد بين المرضى الوافدين الى مستشفى تكريت التعليمي

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المستخلص

الخلفية: الثآليل اورام جلديه حميده سببها الفيروس (إتش بي في). الثآليل مُرسَلة باللمس؛ هو قدْ يَحْدثُ على أصابع القدم المجاورةِ ("تقبيل جروح")، أو في مواقع الصدمةِ في الأيدي، في مناطق حتار الظفر كنتيجة لعضّ الأظفار، وعلى سطح باطن الكف. هناك أنواع سريرية مختلفة بينما ثآليل مشتركة (ثاليل شائعة) تَبْدأ كما تَصقَلُ، حبيبات بلون اللحم وتَتطوّرُ إلى أسمر الرمادي على هيئةِ القبة , نمو مع فرط التقرن بالنقاطِ السوداء على السطح (أوعية شعرية متخثره) الأيدي الأكثر المناطق المعقدةِ عموماً، لكنَّهم قدْ يُوْجَدونَ على أيّ سطح جلدِ. المرضى والطرق: مائة وأربع وعشرون (١٢٤) مرضى بالثآليل صودفتْ في العيادة الخارجيةِ مِنْ طب أمراض جلديةِ في مستشفى تكريت التعليمي مِنْ أكتوبر/تشرين الأول ٢٠٠٨ إلى مايو/مايس ٢٠٠٩. المرضى فُحِصوا مِن قِبل اخصائي الامراض الجلديه وتأريخ طبي أُخِذا إستعمال الإستفتاء الخاصّ. النَتائِج: مِنْ ١٢٤ مريض، ٦٨ (٥٤,٨ %) كانتْ ذكورَ. الماقبل المدرسة وأطفال المدرسة الإبتدائيةِ كانوا أكثر مجموعةِ العُمرية أثرتْ عليها (٤١ %). أكثر المتكرّرةِ لحالاتِ الثؤلول كانتْ مِنْ حضريةِ (٦٢ %). الأيدي كانتْ الموقعَ الأكثر تكراراً في الجسم أثرَ عليه (٢٤ %). نوع الثؤلول الأكثر تكراراً كانَ a ثؤلول مشترك (٥٤,٨ %). بخصوص إلتهاب جلد الأمراض المرتبطةِ الحسّاس كانَ الأكثر تكراراً (١٢ %). الخاتمة: نوع الثؤلول الأكثر تكراراً كانَ a ثؤلول مشترك (٥٤,٨ %) والأيدي كانتْ الموقعَ المتكرّرَ الأكثر في الجسم أثرَ عليه (٢٤ %).

Introduction

Warts are benign epidermal neoplasms that are caused by human papilloma virus (HPVs),which are small DNA viruses.There are more than 100 different types of HPVs, and new types are discovered each year.[1]Infection with HPVs can be latent, subclinical, or clinical. Latent infections are detected with molecular biologic techniques. Subclinical infections are found with colposcope or microscope. HPVs induce hyperplasia and hyperkeratosis. Warts are transmitted by touch; it may occur on adjacent toes ("kissing lesions"), or at sites of trauma at the hands, in periungual regions as a result of nail biting, and on plantar surfaces. Infection occurs when virus in skin scale comes into contact with breaches in the skin or mucous membrane. Warts are spread by direct or indirect contact, impairment of epithelial function by trauma include mild abrasion or maceration or both which greatly predispose to inoculation of virus.[2] There are different clinical types as Common warts (Verruca vulgaris) begin as smooth, flesh-coloured papules and evolve into dome-shaped, gray-brown, hyperkeratotic growths with black dots on the surface (thrombosed capillaries).The hands are the most commonly involved areas, but they may be found on any skin surface.[2] Common warts largely occur between the ages of 5 -20 years and only 15% occur after the age of 35.Spontaneous resolution may occur 1/2 by one year and 2/3 by two years. They may arrange along scratch line (Koebner phenomenon).Cryotherapy worth-trying treatment.[3] Flat warts (Verruca plana) which Are small, skin-coloured papules,often not recognized as warts by patients.Most common sites are face and hands,frequently spread by autoinoculation.[4] Plantar warts: Irregular papule with central loss of skin markings;usually at sites of mechanical pressure.[4]Filiform warts:These growths consists of a few or several fingerlike, flesh-coloured projections emanating from a narrow or broad base. They are most commonly occur around the mouth, beard ,eyes and ala nasi.[2] Anogenital warts spread rapidly over moist areas and may be symmetric on opposing surfaces of the labia or rectum. Condylomas may spontaneously regress, enlarge, or remain unchanged. Latent virus exist beyond the treatment area in clinically normal skin.[5]Warts that are flat or inconspicuous escape treatment.[6]Periungual wart may be the tip of the iceberg; much more of the wart may be submerged under the nail.It can be treated by keratolytics ,[7] blunt dissection[8] and duct tape occlusion.[9]Epidermodysplasia verruciformis: Is a rare,inherited disorder in which cutaneous HPV infection is generalized and persistent.It is autosomal recessive, but autosomal dominant and X-linked dominant forms also reported.The lesons are flat warts or reddish brown macular plaques in sun exposed areas.[10]
Diagnosis of warts usually made by clinical appearance, rarely we need:

1-Application of 3-5% acetic acid (acidowhiting) to genital warts enhancing detection of these lesions.
2-Histological examination.
3-DNA hybridization technique.
4-Immunohistochemistry detection of HPV.
5-Polymerase chain reaction (PCR).

There are many treatment modalities but no one is uniformly effective .They include; topical therapies like salicylic acid, formaline , imiquimod[11] etc... Intralesional therapies such, bleomycin[12] , interferon and 5-FU[13]. Systemic therapies like cimetidine , retinoids, and interferon. Also surgical treatment may be done like excision , curratage\electrodessication , cryotherapy ,laser and radiotherapy.[14]

Patients and Methods

One hundred and twenty four (124) patients with warts were encountered in the outpatient clinic of dermatology at Tikrit Teaching Hospital from October 2008 to May 2009.Patients were examined by dermatologists and medical history was

Results

The 124 patients were 68 (54.8%)males and 56(45.1%)females with male:female ratio of 1.2:1 .The age of patients ranged from 2 years-65years,preschool and school children were mostly affected, another group commonly affected were teenagers and adolescents {52(41%) patients aged <11 years,36(29%) patients aged 11-20years,27(21.7%) patients aged 21-30 years,9(7.2%)patients aged >30 years}(table.1). Males seem to be affected at earlier age with mean age of 11, 82 years while the mean age in females was 16,85 years. Duration of disease ranged from 2 months -1 year. About 47(37.9%) patients were from rural areas and 77(62%) from urban areas (fig.1). Family history was positive in 34(27.4%) patients (fig.2) and koebner phenomenon was positive in 46(37%) patients. Common warts were found in 68(54.8%) patients, plane warts in 22(17%) patients, plantar warts in 12(9.6%) patients, and periungual in 8 (6.4%) patients, filiform warts in 6 (4.8%) patients, genital warts in 4 (3.2%) males, cauliflower warts in 2 (1.6%) patients, oral and finger in 2 (1.6%) patients (fig. 5). The sites of body affected are as follows (face in 26(20%)cases, face & hands in 8(6%) cases, both hands in 30(24%) cases, right hand 16(12%),left hand 4(3%), hand & feet 6(4.8%), plantar6(4.8%), dorsum of foot 5(4%), fingers 8(6.4%), scalp 5(4%), eyelids 8(6.4%), male genitalia 4(3%), oral mucosa& finger2(1.6%)(fig.3). Associated diseases were atopic dermatitis in 15(12%) cases, contact dermatitis in 3 (2.4%)cases, diabetes 1, urticaria 1, ichthyosis 1& aneamia 1(fig.4).

Discussion

Skin wart is common dermatological problem affecting all age groups in both sexes and has many clinical types, it occur at many sites of the body. However, knowledge on wart epidemiology and causes of wart transmission are scarce. Objective is to study some of the clinical and epidemiological criteria of warts in order to provide direction for well-founded recommendations on wart prevention. We found that both sexes are relatively equally affected with male: female ratio of 1.2:1 which agree with the U.K. study done by Williams HC.[15] This ratio is slightly lower than that found by the Indian study of Kanwar of 1.7:1 ;[16]and much lower than that found by Laxmisha of 2.2: 1 and 1.8: 1 in children and adults respectively.[17] We found two peaks of age affected one is those <11 years (41%) and the other at 11-20 years (29%), while Sen Sumit found the peak age is 16-25 years .[18] Laxmisha found two peaks in children (10-14 years) and in adults (14-20 years).Males were affected at an earlier age probably because they are more free to do out-door activities. Family history was positive in (27.4%) patients, while in 10.6% and 27.7% in Kanwar and Laxmisha cases respectively. Van Haalen also found an increased risk of warts in children with family member with wart or where there was high prevalence of warts in the class[19]. Koebnerization was positive in 37% of cases which is higher than in Laxmisha study (20%) probably due to auto-innoculation of the (HPV) virus, this is more noticed in patients with plane warts. Verruca vulgaris is the most common type in our study (54.8%) in agreement with both Sen Sumit and Laxmisha , but disagree with Kanwar who found planter wart to be the most common. We noticed plane wart in the second place (17.7%) and was mainly seen in children and mainly on the face. Planter warts were in the third place (9.6%).Others are filiform warts mostly on the eyelids and perioral. Genital warts less frequently seen probably due to social reasons. The hands were most commonly involved,in agreement to Laxmisha, followed by the face. The right hand was fourfold times more affected than the left,may be because of occupational exposure. Also the sites of involvement were mainly the sun exposed except for the scalp and genital areas.This could be related to the local immunosuppressive effect of UV light.Certain assosciated diseases were

reported like atopy in 15(12%) of cases, this may explain the role of abnormal cutaneous immune response of those people,or probably because such patients usually use steroids and other immunosuppressant.

Table (1):- Distribution of cases of Warts according to age group stratified by gender

Age in years	Male	Female	total	%
<11	30	22	52	41.9
11-20	18	18	36	29.1
21-30	15	12	27	21.8
30 and more	5	4	9	7.2
total	68	56	124	100

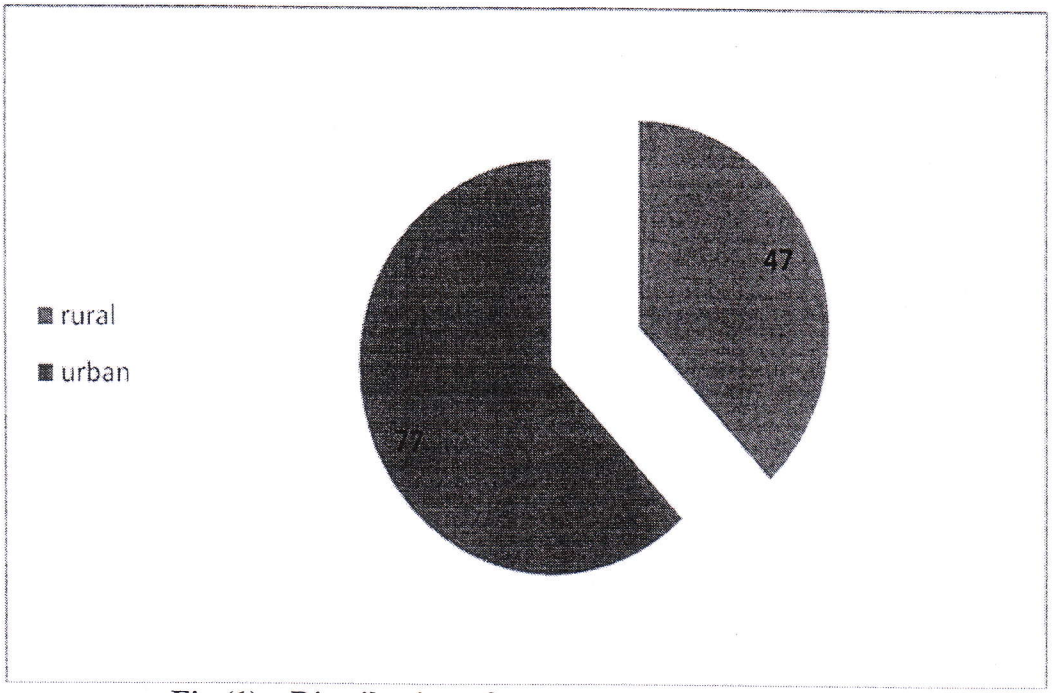
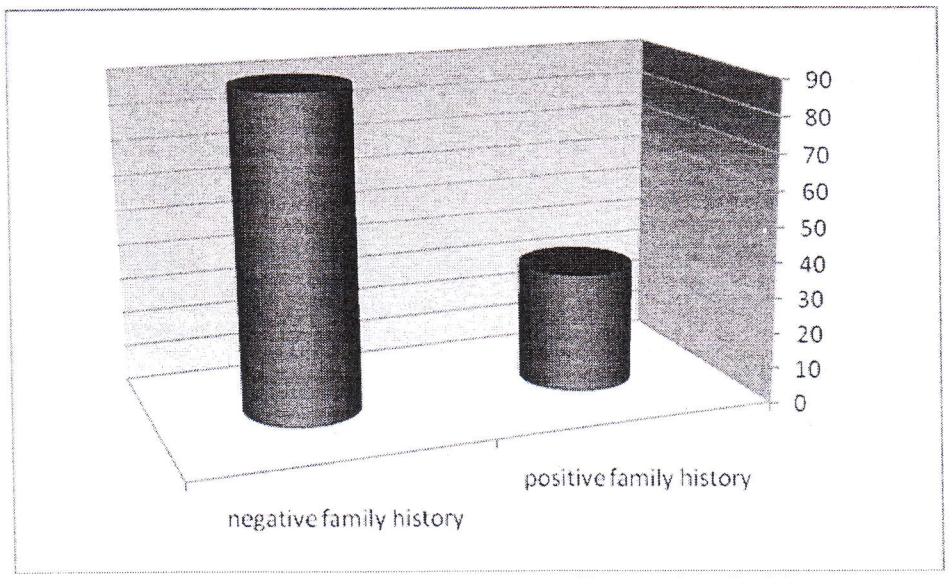
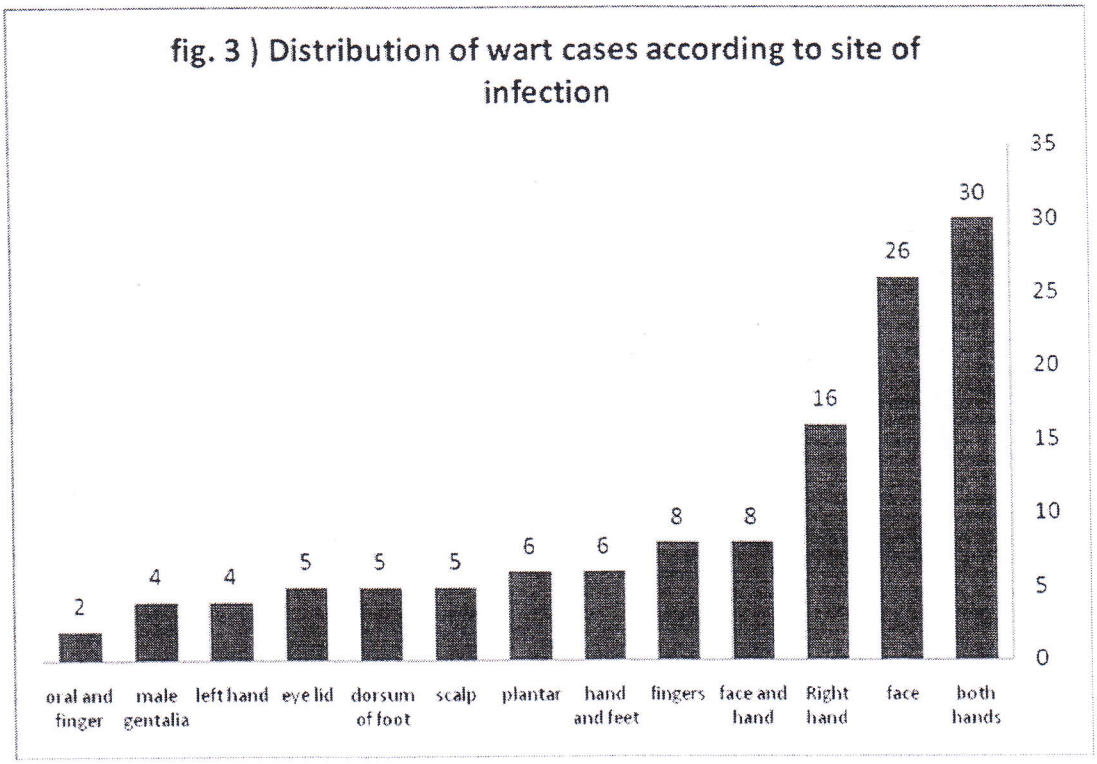
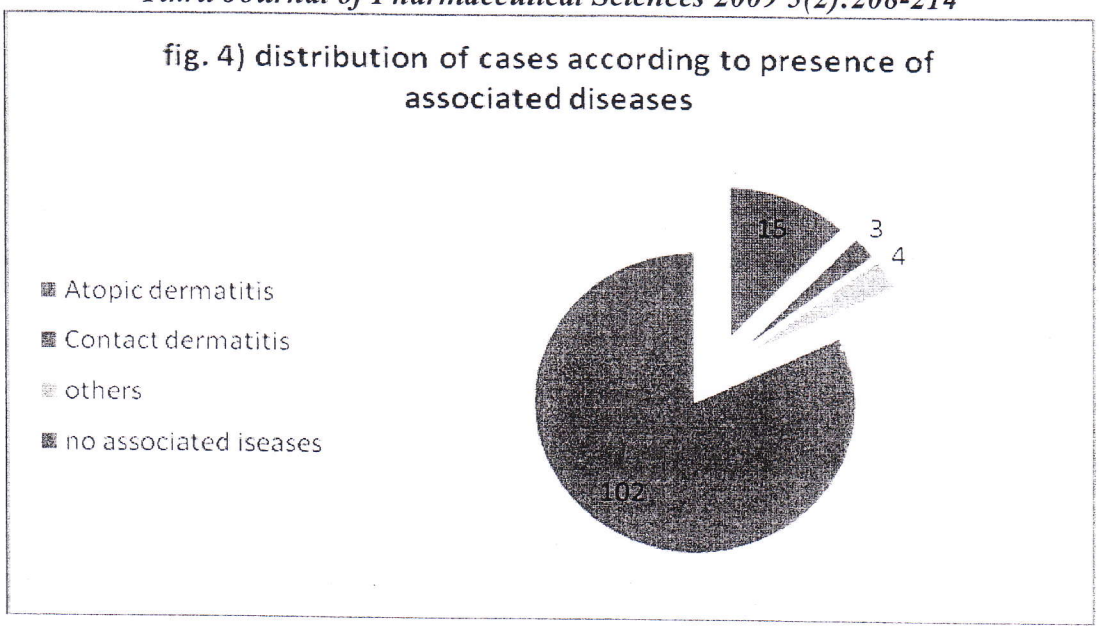


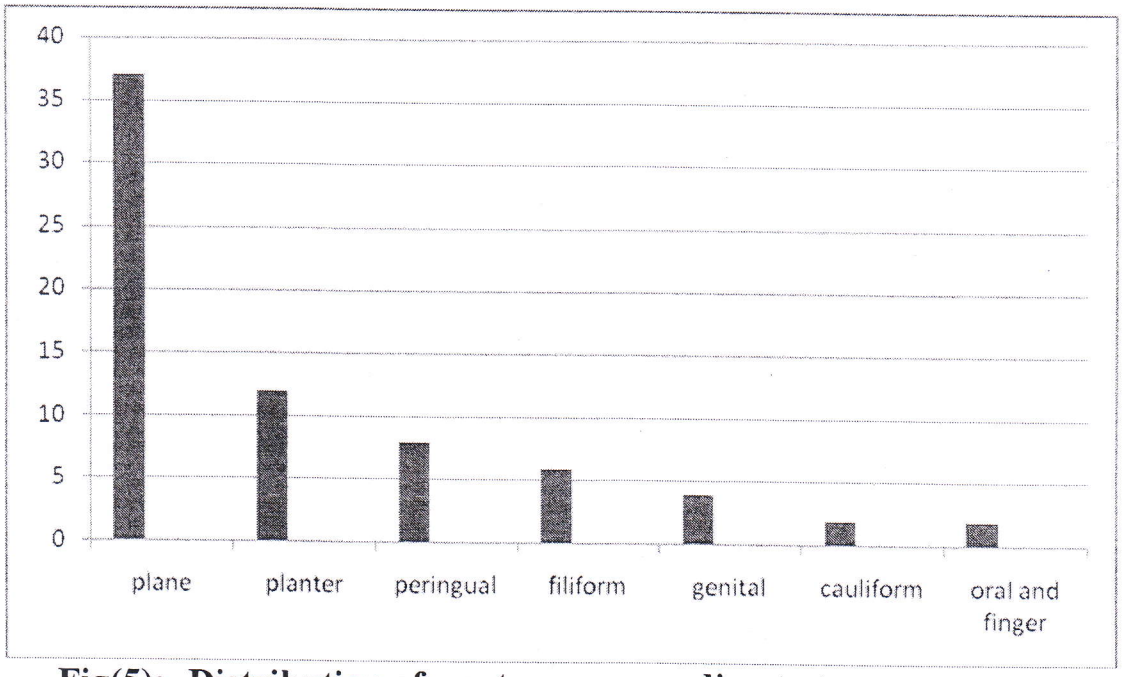
Fig (1):- Distribution of cases according to residence



Fig(2):- Distribution of cases according to family history







Fig(5):- Distribution of wart cases according to types

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