

Clinical Variants of Rosacea in Iraqi Patients

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Abstract

Introduction: rosacea can diagnosis by presence permanent erythema of the arched sides of the face, cheeks and nose then it affect the chin as well as brow. **Method:** A cross sectional study design was implemented, 50 child of Rosacea, were collected from outpatients of dermatology and venereology in Merjan teaching hospital and Alhussein teaching hospital in Thi Qar, from Jan. 2018 to Jan. 2019. All patients were identified basing on the distinctive clinical features by dermatologist, and for suspicious cases biopsy was taken to confirm the diagnosis. **Results:** no significant association between age groups and gender of kids. Significant association between gender and types, 61.1% of females and 54% of males with with Erythemato telengectetic while 30% of females and 14% of males with mixed type. No significant association between gender and types of skin P-value more than 0.05. No significant association between gender and drugs used. P-value more than 0.05. **Conclusion:** There is significant association between female gender and Erythematotelengectetic and mix type of rosacea, while significant association between male gender and Papulopastular type of rosacea.

Key words: Clinical variants, rosacea, Iraqi patients

Introduction

Rosacea can diagnosis by presence permanent erythema of the arched sides of the face, cheeks and nose then it affect the chin as well as brow. In addition, it separate from skin of periocular. It affected females with age 30 – 50 years old. In addition, more serous type of phymatous variations occur in males. Usual features include papules, pustules, flesh skin and telangiectasia. These tend to cluster in patterns, allowing for the identification of several subsets of patients; their recognition is important because the therapeutic implications differ ⁽¹⁾. The term □rosacea□ encompasses a constellation of clinical findings, with the key components being persistent facial erythema and inflammatory papulopustules. In 2002, rosacea was classified into four clinical subtypes: (1) erythematotelangiectatic; (2) papulopustular; (3) phymatous; and (4) ocular. From a clinical perspective it is useful to classify rosacea into the following four subtypes ⁽¹⁾. However, this classification is intended as a guide given that there is some overlap amongst the subtypes and a patient can have more than one subtype. *Erythematotelangiectatic rosacea* (subtype 1; ETTR): Individuals have Persistent centrofacial erythema, Flushing, Telangiectasias,

Skin sensitivity• *Papulopustular rosacea* (subtype 2; PPR): Patients have Persistent centrofacial erythema, Papules, Pustules/papulopustules, Overlap with other subtypes may occur. Phymatous: In this form of rosacea patients have Thickened, nodular skin, Prominent pores, Can affect nose, (rhinophyma), chin (gnathophyma), forehead (metophyma), ears (otophyma), eyelids (blepharophyma), May be associated with other features of rosacea or occur in isolation. Ocular: This entity may or may not be accompanied by cutaneous changes of rosacea. Patients have Dry, gritty sensation, Blepharitis, Conjunctivitis, Chalazia and hordeola, Keratitis, episcleritis, scleritis, iritis (rare) ⁽²⁾.

Methods

A cross sectional study design was implemented, 50 child of Rosacea, were collected from outpatients of dermatology and venereology in Merjan teaching hospital and Alhussein teaching hospital in Thi Qar, from Jan. 2018 to Jan. 2019. All patients were identified basing on the distinctive clinical features by dermatologist, and for suspicious cases biopsy was taken to confirm the diagnosis.

The demographic statistics such as age, gender and the duration of the disease was taken using a checklist, while information about the lesions such as type of lesion, site of involvement and numbers of lesions, itching and other associated symptoms were evaluated at the base time after taking the patients' verbal agreement. The statistical investigations using SPSS version were done. The results attained are deliberated significant at $p < 0.5$. Data used to evaluate the correlation between age, clinical type of LP and the gender of the patients.

Results

50 child with UTI include in study, according to table 1 there is no significant association between age groups and gender of kids.

Table 1: association between age groups and gender.

Age group (Years)	Male		Female		P.Value
	n	%	N	%	
10 - 19	7	14%	6	6.66%	0.466
20 - 29	20	40%	48	53.33%	
30 - 39	7	14%	9	10%	
40 - 49	2	4%	4	4.44%	
More than 50	14	28%	23	25.55%	
Total	50	100%	90	100%	
M±SD	34.10±15.95		32.98±14.89		

P-Value ≤ 0.05 Significance

From table 2 there is significant association between gender and types, 61.1% of females and 54% of males with with Erythematotelen getetic while 30% of females and 14% of males with mixed type.

Table 2: association between gender and types.

type	Male		Female		P.Value
	N	%	N	%	
Papulopastular	10	20%	6	6.66%	0.003*
Erythematotelengetetic	27	54%	55	61.11%	
phymatous	6	12%	2	2.22%	
Ocular	0	0%	0	0%	
Mixed	7	14%	27	30%	
Total	50	100%	90	100%	

P.Value ≤ 0.05 Significance

Mixed = ET+ocular , ET+PP

According to table 3 there is no significant association between gender and types of skin P-value more than 0.05.

Table 3: association between gender and types of skin.

Skin type	Male		Female		P.Value
	n	%	N	%	
Skin type 2	0	0%	0	0%	0.595
Skin type 3	29	58%	48	53.33%	
Skin type 4	21	42%	42	46.66%	
Total	50	100%	90	100%	

P.Value \leq 0.05 Significance

According to table 4 there is no significant association between gender and drugs used. P-value more than 0.05.

Table 4: association between gender and drugs used

drug	Male		Female		P.Value
	n	%	N	%	
Non	18	36%	26	28.88%	0.523
Topical steroid	22	44%	39	43.33%	
Herbal	10	20%	25	27.77%	
Total	50	100%	90	100%	

P.Value \leq 0.05 Significance

Discussion

Rosacea less affected color peoples than white peoples, trouble of discriminating erythema plus telangiectasia in color skin peoples lead to misdiagnosed and low reported of rosacea. Colored skin peoples less likely to have rosacea after sun exposure, prevalence of rosacea was high 40 million peoples affected with it and rate reach to more than 10%^(3, 4). Rosacea as a illness of people fair-skinned with Celtic plus North European legacy (Fitzpatrick skin I plus II), so high no. of rosacea occur in countries with significant amounts of peoples

with skin of colored with rate more than 10%. While countries with proportion of white color skin peoples to darks skin if little so the no. of people with rosacea decrease. Peoples with dark skin may lead to miss diagnosis with rosacea and lead to delay in treatment and increase morbidity and mortality and developed phymatous rosacea⁽⁵⁾. The prevalence of rosacea in patients with skin of color is not well studied but appears to be less common than in those with skin phototypes I and II9. Epidemiologic studies from countries where darkly pigmented individuals predominate population-

wise suggest that the prevalence is far lower than in countries where the population is predominantly fair-skinned. Based upon a higher prevalence in those with skin phototypes I and II, *ultraviolet light* has been proposed as an additional contributing factor to the pathogenesis of rosacea. UVR also induces production of reactive oxygen species, which upregulate matrix metalloproteinases that lead to vascular and dermal matrix damage⁽²⁾.

Rosacea affects all races, but is most common in fair-skinned individuals. Although the prevalence of rosacea is unknown, the vast majority of cases occur in fair-skinned populations and it is common. However, persons of African and Asian descent may also develop rosacea⁽⁶⁾. Rosacea occur facially and on eyes, the prevalence estimated 2.3% in Germany, 0.09% in Island, 10% in Sweden and 22% in Estonia. The ages of peoples that affected was 30 – 50 years old. Occasional cases of PPR and some cases of OR have been reported in children. The disorder appears to be less prevalent in the elderly. The age of onset of rosacea may be earlier in females than males⁽⁷⁾. Sex Some population studies report a slight predominance of males affected by rosacea⁽⁸⁾, while others (mainly hospital-based studies) suggest females are more frequently affected⁽⁹⁾. The different figures may reflect the varying age of onset of the condition and the age profile of the particular population studied, or possibly the increased likelihood of female patients presenting to their dermatologist for treatment. Male patients are said to develop more severe rosacea than women and are much more likely to develop rhinophyma than females. Ethnicity Rosacea is a disorder that predominantly affects fair, pale-skinned, sun-sensitive individuals: those of Celtic origin seem to be most susceptible (sometimes referred to as the ‘curse of the Celts’ for this reason). This is reflected in the much higher frequency with which rosacea is diagnosed in dermatology clinics in northern Europe as opposed to those in southern African countries with darker skin-type populations⁽¹⁰⁾. Rosacea also appears to be less common in individuals with an Asian skin type than with white skin⁽¹¹⁾. 348 of peoples works in Estonia 20% of them with rosacea and 55% of them with Fitzpatrick I and II type of skin, other study showed 38% of patients with type III skin and 7% type IV⁽¹²⁾. Also when rosacea diagnosis in color skin more in females than males with previously steroid used. Low flushing see in skin type VI

occur due to circulatory supply to skin and microvascular functions. The circulation inside skin activate hyperemia then after obstruction and heating examine, so also these studies revealed difference between skin of white peoples and dark peoples and decrease in vascularity of skin of this peoples⁽⁵⁾. Salem et al. also revealed high frequency of rosacea in colored peoples in KSA⁽¹³⁾, also the age of patients with rosacea was south Africa 47 years old⁽¹⁴⁾, 49 years old in Tunisia⁽¹⁴⁾ and 24 – 84 years old in China⁽¹⁶⁾. In China 68 women with mean of age 32.5 years old, 70.5% of patients have ETR, 29.4% of patients have PPR⁽¹⁷⁾, in Japan 13 men with mean age 46.9 years old, Erythema besides papules in 69.2% of them⁽¹⁸⁾, while in Korea 18 cases; with median of age 49 years old; women represented 72.2%, type IV of skin 61%; while ETR in 88.9% of cases and PPR in 11.1% of cases⁽¹⁹⁾.

Another study in Korea revealed that 168 patients with mean age 47.8 years old, 70% of them were females, 57% type III of skin, 33% type IV, 7 % type V. 96 % ETR while PPR 50 %, 14 % ocular and finally 5% PHY⁽²⁰⁾.

90 patients in Italy with mean age 51 years old, 57% of them females, 27 with papulopustular lesions, 6 only with rhinophyma, 7 patients with ocular difficulties⁽²¹⁾. While 135 patients in Germany with mean age was 52 years old, 87% women, skin type classified as the following: 31% type III, 8% type IV, 64% ETR and PPR is most usual in in IV type of skin⁽²²⁾. 50 patients in Saudi Arabia with mean age was 42 years old, skin type classified as the following: 40% type IV, 18% type V, 42% type VI, PPR represented 100% of cases⁽²³⁾. In Egypt 15 women with mean age 44 years old and skin, type III 100% of cases⁽¹³⁾.

Conclusions

There is significant association between female gender and Erythematotelengectetic and mix type of rosacea, while significant association between male gender and Papulopastular type of rosacea.

Ethical Clearance

The Research Ethical Committee at scientific research by ethical approval of both MOH and MOHSER in Iraq

Conflict of Interest: Non

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