

Clinico-epidemiological Profile of Rosacea at a Tertiary Care Hospital in Eastern Nepal

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Abstract

Introduction: Acne rosacea is an inflammatory disease affecting the central part of the face characterized by erythema, papules, papulo pustules and telangiectasias. The precise aetiopathogenesis of rosacea is generally considered to be multifactorial but most of it is unknown. The epidemiological characteristics of rosacea and the varied triggering factors may also differ through continents.

Objectives: To determine the clinico- epidemiological profile and triggering factors in rosacea **Materials and Methods:** All patients attending the Dermatology out Patient Department of BPKIHS from Nov 2010 – Nov 2011 were included in the study and a detailed history and cutaneous examination were performed and recorded in a pre set proforma.

Results: A total of 52 patients were included with a male preponderance. The hospital prevalence of 0.3 % was found. The mean age of the patients was 49.67± 14.03years. Sun exposure was seen in 40 (76.9%) patients followed by hot spicy food in 30(57.7%) patients. Persistent Erythema was seen in all patients followed by telangiectasias in 48 (92.3%) patients. Grade 2 rosacea was the commonest diagnosis in 18 (34.6%) patients and Ocular symptoms were seen in 14 (26.9%) patients.

Conclusions: Rosacea shows a broad diversity in its clinical manifestations and its aetiopathogenesis. The elimination and reduction of contact with aggravating factors may thus help in the effective management of patients.

Key words: Rosacea, epidemiology, aggravating factors

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Introduction

Acne rosacea is an inflammatory skin disease that commonly affects the central part of the face and usually appears at any time from the third or fourth decade onwards.¹ The classic type of rosacea is characterized by erythema, papules, papulo pustules and telangiectasias usually appearing symmetrically along with flushing episodes. The disease lasts for years with episodes of improvement or exacerbations.²⁻⁴

Numerous factors have been implicated in the pathogenesis of rosacea but data regarding the same for rosacea from Nepal are lacking. Thus this study was undertaken to determine the clinico-epidemiological profile and triggering factors in rosacea at a tertiary care hospital in eastern Nepal.

Materials and Methods

Fifty two patients attending the Dermatology Out Patient Department from Nov 2010 – Nov 2011 were included in this prospective cross sectional study. Diagnosis of rosacea was based on the clinical criteria stated by the Expert National Rosacea Society Committee (presence of one or more of the following primary features concentrated on the convex areas of the face: flushing, permanent erythema, papules and pustules and telangiectasia).⁵

A detailed history and cutaneous examination were performed and recorded in a pre set performa. Patients were also diagnosed by histopathology as and when needed. Patients with history of any application of steroids and other topical medications prior to the study period, any intake of any systemic antibiotics prior to enrollment, history of any chronic gynaecological and other systemic diseases and pregnant and lactating patients were excluded from the study.

Data were tabulated and interpreted in terms of percentage, mean and standard deviation and to test the significance of association between the grading of rosacea and the confounders, Chi square tests were applied using the SPSS software.

Results

A total of 52 patients were enrolled in the study. The hospital prevalence was found to be 0.3%. The age of the patients ranged from 23-82 years with a mean of 49.67 ± 14.03 years. There were 38 males and 14 females and the male: female ratio was 2.71:1. The duration of Rosacea ranged from 1-240 months with a mean of 47.42 ± 61.55 months.

The symptoms of the patients is shown in Table 1. The exacerbating factors were asked for in all patients. Sun exposure was recorded in 40(76.9%) patients followed by hot spicy food in 30 (57.7%) patients (Figure 1).

History suggestive of Acid peptic disorders was given by 22(42.3%) patients of whom all had symptoms of belching followed by heartburn in 20 (38.5%) patients and history of pain abdomen and waterbrash in 14(26.9%) patients. On clinical examination the nose 52(100%) was the most commonly affected followed by lesions mostly on bilateral malar areas 40(76.9%), (Figure 2). Morphological examination revealed persistent erythema in all patients followed by telangiectasias in 48(92.3%) patients (Table 2).

Grade 2 rosacea was the commonest diagnosis in 18 (34.6%) patients followed by 12 (23.0%), 16(30.8%) and 6(11.5%) patients having Grade 1, 3 and 4 respectively (Figure 3 and 4). Ocular symptoms were seen in 14(26.9%) patients of which all the patients complained of foreign body sensation followed by 6 (11.5%) patients complaining of photosensitivity and burning sensation and 2(3.8%) patients complained of blurring of vision.

Association was sought in relation with the various confounding variables and the severity of rosacea using the univariate analysis and values having the p value > 0.05 were taken to be significant and highlighted (Table 3).

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Table 1: Signs and Symptoms of patients with Rosacea

Signs and Symptoms	Patient n (%)
Papules	48 (92.3%)
Pustules	40 (76.8%)
Burning Sensation	38 (73.1%)
Itching	18 (34.6%)
Pain	12 (23.1%)
Scaling	18 (34.6%)
Local rise of temp	20 (38.5%)
Edema	16 (30.8%)
Eye Complaints	14 (26.9%)

Table 2: Morphological findings in patients with Rosacea

Morphology	Patient n (%)
Persistent Erythema	52(100%)
Telangiectasias	48(92.3%)
Papules	46(88.5%)
Pustules	32(61.5%)
Nodules	10(19.2%)
Scar	2(3.8%)
Irregular surface	20(38.5%)
Thickening of the skin	20(38.5%)
Enlargement of the nose	18(34.6%)

Table 3: Association between severity of rosacea and variables

Variables		Severity of Rosacea (n)		P value
		Grade 1 and 2	Grade 3 and 4	
Pain over the lesions	Absent	26	14	0.05
	Present	4	8	
Stress	Absent	20	22	0.003
	Present	10	0	
Anger	Absent	16	18	0.033
	Present	14	4	
Exercise	Absent	28	16	0.042
	Present	2	6	
Pustules	Absent	16	4	0.010
	Present	14	18	
Nodules	Absent	28	14	0.007
	Present	2	8	
Thickening of the skin	Absent	30	20	0.092
	Present	0	2	
Enlargement of the Nose	Absent	26	8	0.00
	Present	4	14	
Ocular symptoms	Absent	28	10	0.00
	Present	2	12	

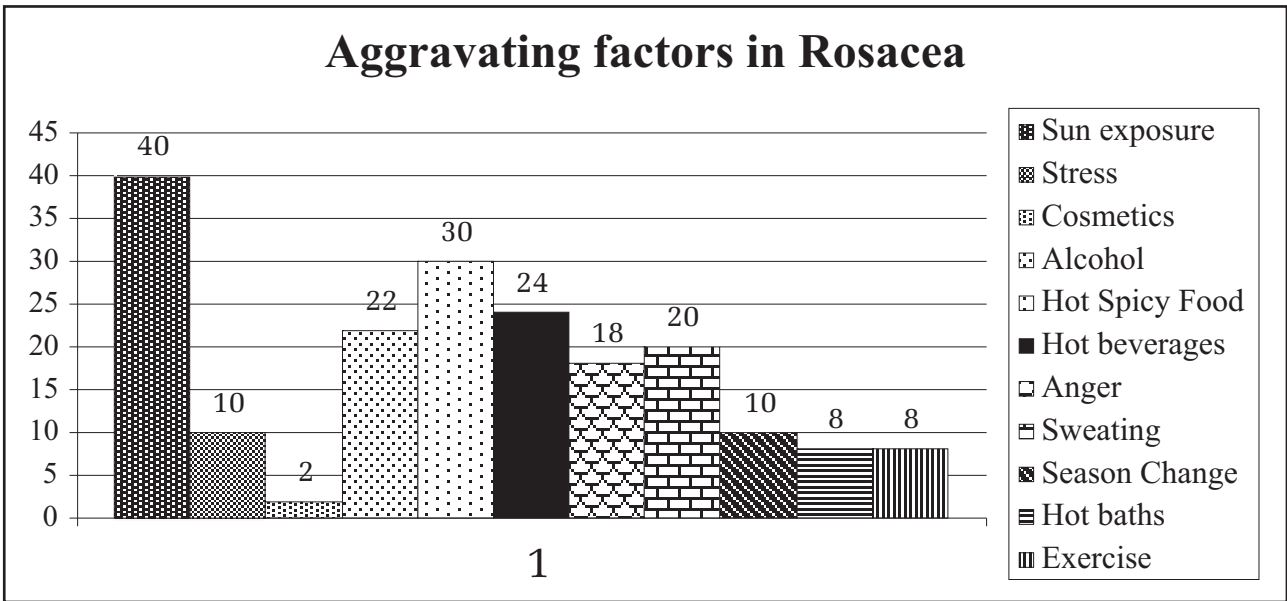


Figure 1. Aggravating factors in Rosacea

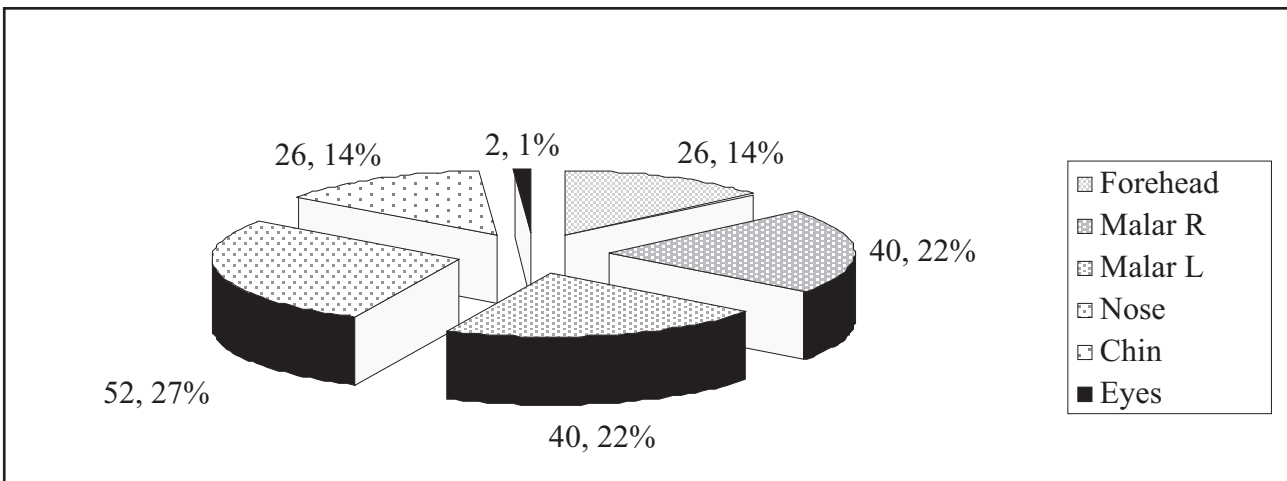


Figure 2. Distribution of lesions in Rosacea

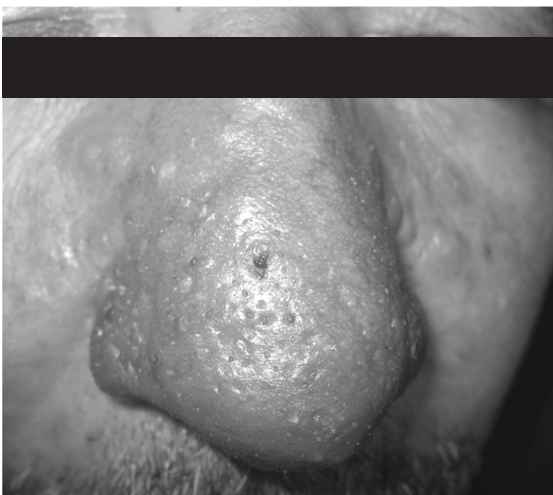


Figure 3. Papulo - Pustular rosacea

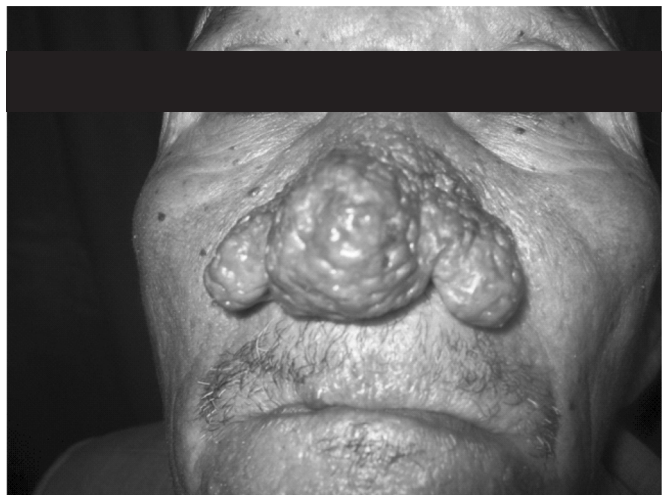


Figure 4. Phymatous rosacea

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Rosacea is commonly described as a chronic inflammatory cutaneous disorder, primarily affecting the central face (cheeks, chin, nose and central forehead). However, in contrast to this apparently simple definition, rosacea shows a broad diversity in its clinical manifestations and its aetiopathogenesis.⁶

Rosacea represented 0.3 % of dermatological outpatient cases in our study. This is in comparable to the different studies showing a prevalence of 0.2- 22%.^{7- 12} the disease equally affects both genders but men with rosacea are more prone to the development of thickening and distorting phymatous skin changes.¹³

Patients are most often diagnosed with the condition during their 30s to 50s; overall, around 57% of cases are diagnosed in the under-50s.^{17,18} The age of the patients in our study ranged from 23-82 years with a mean of 49.67± 14.03 years which was in agreement with previously reported epidemiological data.

Female preponderance has been reported by various study in rosacea and was probably related to the greater medical request from women because of the esthetic damage in the developed countries.^{7,11,14} However, Lazaridou et al has reported that male patients preceded female patients over the age of 71 years, suggesting that men may develop the disease at an older age.¹⁵ while some authors have found that both genders are equally affected.^{13, 16} In our study, a male preponderance 73% (38/52) was noted. This however could be due to the fact that the males in the study as an occupation used to work in the kitchen making “sekuwa”, a local barbeque and was exposed for a long period in front of the fire. Besides most of the men in the study were also alcoholics. . It could also be explained as males had presented with a later age as that compared to the females as the males had a mean age of 54 ± 13 years compared to that of the female which was 38 ±9 years.

The precise aetiopathogenesis of rosacea remains unknown and is generally considered to be

multifactorial.¹⁹ A number of predisposing factors and stimuli, the so-called ‘trigger’ factors, are recognized which result in initial manifestations or exacerbations of rosacea including heat, alcohol, sunlight, stress, menstruation, certain medications or foods.²⁰

Various studies have shown sun exposure as a major factor that act as trigger causing skin changes in their study ranging from 17-73%.^{7,11,15,19} Our study found sunlight as a predisposing factor in 40 (76.9%) patients followed by hot spicy food in 30 (57.7%) patients. However anger, stress, and exercise present in 18 (34.6%), 10 (19.2%), and 8 (15.3%) patients respectively showed a positive association when sought with the severity of rosacea (p=< 0.05)

An association between rosacea and gastrointestinal disease such as gastritis and duodenal ulcer has been found.²¹ Khalid et al reported that 5/185 patients suffered from gastritis/duodenal ulcer, however our study showed a higher positivity in 22(42.3%) patients complaining of symptoms of acid peptic disorders but the diagnosis of ulcer could not be established. Ocular rosacea was observed in 22.16% by Khaled et al followed by 33% by Lazaridou et al. We also found our patients having ocular symptoms in (26.9%) patients.^{7,15}

Thus rosacea may essentially be a syndrome with a multifactorial aetiology and chronic course. The elimination and reduction of contact with aggravating factors may thus help in the effective management of patients. More studies however are necessary to establish a causal relationship with all the associated and trigger factors.

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