

To Study the “Knowledge” About Psoriasis in Undergraduate MBBS Students

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Abstract

Background: Psoriasis is a chronic inflammatory skin disease with itchy, coloured scaly lesion/patches on the skin. It can present with arthritis, nail involvement with cosmetically disfiguring affecting the quality of life (QOL). Knowledge of psoriasis is essential so as to avoid misbeliefs & discrimination against psoriasis patients, which can be achieved through the future medicos if they are aware of scientific facts.

Materials & method: An observational, cross-sectional study of 100 MBBS students' undergone clinical batches with 20 objective questions of answers Yes/No, comprising of six different headings as entered in a master chart. Percentage of desired/correct answers was calculated & “average” of 6 categories compared for ranking, so as to judge the level /percentage of awareness of each question/headings.

Results: Out of six-6 categories all students heard about psoriasis. Knowledge of “Myths - misbeliefs” as well as advanced knowledge was 34.8%, Scientific knowledge- 29.3%, General knowledge- 27.4%, Awareness- 20%, Except the A, all categories lie below average (35%), showing poor knowledge about psoriasis.

Conclusions: The undergraduate MBBS students having a poor knowledge about psoriasis who must be well trained with exposure to psoriasis patients since Doctors are the topmost in spreading the knowledge.

Keywords: Psoriasis Knowledge MBBS; Undergraduates; Poor Awareness

Introduction

Psoriasis is a chronic inflammatory skin disease characterised by scaly lesion/patches on the skin. The patches are itchy & are pigmented or silvery white, anywhere on body including genitals. These coloured scaly, itchy lesions on exposed parts are cosmetically unaccepted. Even though Psoriasis, though not contagious but usually presents with psoriatic arthritis & nail involvement. The ‘quality of life’ is compensated in psoriatic by disturbed mental status, depression & by isolation [1].

The layman or non-medico people do not know the cause or diagnosis about psoriasis, which leads to misbeliefs & wrong attitude towards the victims of this psoriasis patients.

The scientific knowledge regarding this disease is lacking in all elements of society in India including medical professionals, students and medical graduates. Lanigan SW & Farber EM, in a similar study noted that many patients with psoriasis have gaps in their knowledge of the disease or misconceptions that could be obstacles to effective treatment and disease prevention [2].

The myth that it is a contagious disease, makes the patients to be avoided in communities may lead to low self-esteem, depression and even suicide by the patient.

The present study carried is done in, “undergraduate MBBS medical students.” So this study will help in accessing their “knowledge” as well as spread of knowledge to patients about psoriasis in future. This study will help in to learn, general, scientific & advance knowledge about psoriasis along with myths-misbeliefs through 20 objective questions.

Aims & Objective:

To study the “knowledge” about psoriasis in undergraduate MBBS students.

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Materials and Method

Inclusion criteria: One hundred MBBS students of clinical batch of 5th & 6th semester, who undergone clinical postings in medicine (1st author) & dermatology (2nd author) were given a questioner consisting of 20 objective questions regarding knowledge about "psoriasis." The answers were to be written in the form of either Yes (1) or No (2). We compared the answer with our "desired" / ideal / correct / near to the correct answer, as shown in Table 1-a & b.

Master-chart in excel format of 100 answer-sheets (20 questions each) was analyzed by a biostatistician, who compared answers with "ideal / desired" answers as shown in table 1-a & 1-b.

Exclusion criteria: Students not willing to answer the questioner.

We have categorized 20 questions in six-6 categories as shown in tables: 1 & 2. Ranking of correctness was calculated from the percentage (%) of desired (entered in master chart) answers & shown in table-2 as above. The data was entered "Excel-2010" sheet, analysed on SPSS software, version-20.

Conclusion drawn on the grounds of, "result of, average percentage & the ranking of correct/ desired answers of six-6 categories."

Study Design: Cross-sectional & Observational study.

Observations & Results

Out of six-6 categories all students are 1st in ranking about to hear the disease psoriasis. Knowledge of "Myths & misbelieves" as well as

Table 1a: Category wise questions & desired answers

Category	Question No.	Name of question	Desired answer (Yes=1, No=2, NA=Not applicable)	% of a desired answer
A = About Psoriasis	1	Do you know /heard about disease "Psoriasis"?	1	100
B = Awareness & media	2	Which is the source of knowing Psoriasis? TV, Magazine, Doctors, Layman	TV=26, Magazine=22, Doctors=29, Layman =23,	N.A.
	17	Has it any relation with skin patches of Leprosy / Vitiligo?	2	23
	18	Does psoriasis affects quality of life (QOL) as stress/ depression, worsen or leads to exacerbate it?	1	17
	20	Is this questioner useful to know miss-beliefs/ knowledge about Psoriasis?	1	100
C = General knowledge	4	Is it completely curable forever without 'recurrences'?	2	13
	6	Oldage is a common age group than the children & adult.	1	10
	10	Is it predominantly an itchy condition?	1	59

Table 1b: List of questions & their desired/ideal answers, continued from table 1a

Category	Question No	Name of question	Desired answer (Yes=1, No=2, NA=Not applicable)	% of a desired answer
D = Scientific knowledge	3	Is Psoriasis "contagious"?	2	22
	5	Is it a hereditary?	1	14
	11	Scales will be whitish or reddish / red- white?	1	63
	15	Will alcohol addicted life style may exacerbates psoriasis?	1	18
E= Myths & misbelieves	8	Has it relation with hygiene?	2	26
	9	Psoriasis is ugly looking & disfiguring, so is it a sin of a past life?	2	74
	12	Should Psoriasis patients avoid the marriage for it's cosmetically look?	2	17
	16	Psoriasis is an autoimmune disease. So it is contagious?	2	22

F=Advance knowledge	7	Diet may be related Or non - vegetarians may more affect?	1	59
	13	Heard of "Metabolic Syndrome" with the Psoriasis? Will it reduces life of psoriatic by cardio-vascular associations?	1	20
	14	Cosmetically disfiguring along with joint/nail involvement?	1	43
	19	Steroids/biological drugs /other therapies will not cure completely but will control psoriasis?	1	17

Table 2: Summary of table 1a & b, showing % & Ranking of correctness of knowledge.

Category	Question number	Percentage % of Desired answers	Ranking of correctness
A = About Psoriasis disease	1	100%	1
B = Awareness	17,18	20%	5
C = General knowledge	4,6,10	27.4%	4
D = Scientific knowledge	3,5,11,15	29.3%	3
E = Myths & misbelieves	8,9,12,16	34.8%	2
F = Advance knowledge	7,13,14,19	34.8%	2

Q :2-Doctors=29%. Q: 20-Usefulness of questioner=100%

advanced & scientific knowledge ranked second, while scientific knowledge & general knowledge ranked 3rd & 4th respectively. Awareness was 5th in rank i.e. poorest. Except the A, all categories lie below average (35%), showing poor knowledge about psoriasis. Doctors were the topmost comparatively in spreading the knowledge. "Myths & misbelieves" towards the disease can't be eradicated unless they have a satisfactory knowledge. All students agree for the usefulness of this questioner.

Discussion

The avoidance to the patient of skin diseases in society, results in embarrassment for the social fear, problems at workplace, peers to mix-up including the psoriatic patients, including marriage problems in community. The reported prevalence of psoriasis globally ranges between, 0.09 % to 11.4%, which is a serious global problem [3].

This is a multisystem disease affecting the QOL having many systemic complaints like arthritis as well psychological discomfort/ guilty sensation for the itchy scales [4].

So, we included many questions here to cover the awareness, myths & mis-beliefs, knowledge including scientific & advanced, as shown in table 1a & b. This questioner is solved by MBBS 2nd & 3rd year students undergone some clinical postings, where they are exposed to a word, "psoriasis" from a medical college in south costal region of

Maharashtra state, in India, of six categories of the headings like, myths & mis-beliefs, scientific knowledge etc., as per headings A to F & ranking of each category (Table 2) was calculated after average of the percentage of their correct/desired answers (Table 1a & b).

A. Knowledge about psoriasis

All the 100% students have heard about psoriasis. They may not have correct knowledge about the disease but at least they heard or know the word. This is because of the wide publicity through the media, scientific literatures & health care workers.

B) Awareness & media

Source of knowing Psoriasis

Twenty nine (29)% knew from doctors & 26% from T.V media; however layman & Magazines contributes to the knowledge least i.e. about 22%. The percentage of knowledge through the doctors should increase so as to get correct scientific knowledge. Unfortunately scientific magazine have least interest. Only 22% lay-man does contribute to the knowledge in society. Students cannot be blamed because the knowledge has not percolated i.e. reached at bottom of society.

Usefulness of questioner for knowledge

All, 100% students were admirable for their

constructive good thoughts & a healthy desire to fight against psoriasis, since they agreed for the usefulness of this questioner, making to think over misbelieves & myth as well as scientific knowledge.

Relation with skin patches of Leprosy / Vitiligo?

The confusion is likely because of hypo-pigmented patches present in both the conditions [5].

Psoriasis, Vitiligo & Leprosy is very close differentials clinically, which can be misdiagnosed vice-versa [6].

Skin patches of Psoriasis, Leprosy & Vitiligo possess many myths & misbelieves in Indo-Asian continent, where these patients are avoided at the social functions and segregated from their families [7].

Vitiligo is also prevalent in Asian countries like India, students should know this difference. Only 23% students knew that the leprosy patches are different than vitiligo.

Psoriasis & quality of life (QOL), as stress/depression worsens or leads to exacerbation.

Since psoriasis is chronic disease without permanent cure which leads to a negative impact on QOL. An embracement in adolescent & youths prevents them from social mixing & disturbed sleep, skin Seborrhoea including the genitals involvement makes him or her anxious [1,8,9,10].

Only 17% students knew about the disturbed QOL, showing their poor knowledge.

Thus averagely (Q 17 & 18) 20% of students have an "awareness."

C) General knowledge about psoriasis

Complete curability forever without recurrences

Psoriasis is recurrent multifactorial & associated with immunity, triggering factors like streptococcal infections, psychological stress, kobnerisation etc. Work absenteeism due to downgraded QOL, cost & side effects of recent therapy like biological drugs also contributes inadequate treatment all which leads to poor compliance restricting from a permanent cure [11,12,13,14].

Very few students (13%) agree that it is not a perfectly curable. This is obvious at their undergraduate knowledge stage, since multiple

factors play roll in curability of psoriasis.

Age group

Dogra & Mahajan, in 2016 in a mass study in India, found the age prevalence of psoriasis in children is much lower & more in adults at onset of third and fourth decade of life [15].

So the myth that psoriasis affects only adults is not true.

The age group 50-69 years, is commonest than adults & children, the answer which is desirable by author. Though psoriasis can occur at any age, old age group is commonest [16].

Only 10% of students are in favour of old age as table 1-a, which proves their poor knowledge.

Predominant itchy nature

A satisfactory percentage (59%), for knowledge regarding the psoriasis is an itchy condition.

Pariser D et al. observed itching / scratching in 87%, rash - 74, bleeding after scratching- 58, redness -57, dry skin -34, burning -28, physical discomfort -32 is present in percentage [17].

Thus averagely (Q 6 & 10) 27.4% of students have General knowledge.

D) Scientific knowledge

"Contagiousness" due to Psoriasis:

Psoriasis is chronic inflammatory & auto-immune disease & not caused by any transmissible infection, so it is not a contagious disease. Social stigmatization of people suffering from psoriasis is found because it is wrongly taken as a contagious disease. Immune system plays an important role in the pathogenesis of psoriasis. Since the early 1990s, it has been assumed that T1 cells play the dominant role in the initiation and maintenance of psoriasis. However, the profound success of anti-tumour necrosis factor-alpha therapy, when compared with T-cell depletion therapies, should provoke us to critically re-evaluate the current hypothesis for psoriasis pathogenesis, so it is not a infectious [18].

Though 22% of students agree about this desired answer, rest 88% have a poor scientific knowledge. This discriminate behaviour can lead to misbelieves.

Is it a hereditary?

Psoriasis is a genetically autonomous so any one in

family or of next generation may have psoriasis [19].

Only 14% students possess this knowledge of heritability.

Colour /appearance of the scales

63% students have a good clinical knowledge about white / redish-white scales, may because of most of them seen on media or in their clinical posting.

Alcohol addicted life style & the psoriasis

Psoriasis being as an inflammatory skin condition wherein there is a cutaneous vasodilatation & the alcohol too causes the same, so it is a triggers inflammation. Even though there are few studies with controversial or vague results still alcohol has a roll in exacerbation of psoriasis [20, 21].

There is a poor knowledge (18%) regarding alcohol addiction which should be abounded in psoriasis.

Thus averagely (Q 3, 5, 11, 15) 29.3% of students have scientific knowledge.

E) Advance knowledge:

Relation with diet & non – vegetarian diet

According to Dr Abdul Lateef in year 2009, 21.4% individuals thought that diet had a role to play in the disease process while 30.6% blamed some kind of allergy to be responsible for the development of psoriasis [7].

M. Wolters in 2005 proved that diet is related with psoriasis in his experimental data, showed that vegetarian diet improves psoriasis [22].

Non-veg diet rich in Fat/ lipids has positive association with psoriasis [23].

Though it is controversial as there are very few studies proving that non-vegetarian diet leading or triggering psoriasis, 59% of students are agree/ knew with our desirable answer.

Association with "Metabolic Syndrome" which reduces life of psoriatic by cardio-vascular co-morbidities

Metabolic syndrome (MS) is a group of such as, a large waistline, high triglyceride level, low HDL cholesterol level, Hypertension & Diabetes which are risk factors for sudden death.

Recently it is proved that metabolic syndrome i.e. MS has a direct co-relation with psoriasis. It can

shorten life by sudden death from a cardio-vascular accident. So MS can be co-morbidity with psoriasis [24,25].

Only 20% students know about this, so poor in advanced knowledge.

Cosmetically disfiguring along with joint/nail involvement

Inflamed / whitish scales on head neck face & extensors alter the "look" of psoriatics. Along with the joints, nails & multisystem with facial skin involvement contribute in cosmetically bad-appearance, which makes a psoriasis patients suffer from disturbed "body image and body dys-morphic" feel [26,27].

The 43% i.e. average number of students knew about joint and nails involvement, may be from TV/ Media/advertisises.

Assurance of cure (by steroids/ biological drugs etc or by other therapies)

Even though, psoriasis being as autoimmune multifactorial & hereditary disease which cannot be completely cured permanently forever by any of the therapies. However it can be kept under control by regular treatment. Recently used class of biological drugs though keep longer remissions, are practically less convenient on grounds of full cure, cost & side effects [28]. The patients should aware of this scientific fact so as to avoid barrier in treatment [29]. There was a poor knowledge (17%) about these scientific facts.

Thus averagely (Q 7, 13, 14, 19) 34.8% of students have advance knowledge.

F) Myths & Misbelieves

Un-clean hygiene

The itchy, redish / silvery white patches show an ugly look, by which it is mis-understood & blamed for hygiene. In fact, cleanliness has no relation with it. 26% of students are of opinion that the un-cleanliness has affection/ association with psoriasis.

Psoriasis a sin of a past life for its ugly & disfiguring look

A good number i.e.74% student agreed that it is not a sin of past life, which shows that they have a good knowledge. Medical students though have a poor scientific knowledge & myths about; but at

least no myth about the psoriasis as a sin of past life, as this disease is autoimmune.

Myths & misbelieves about avoiding the marriages by psoriatics for it's cosmetically look

A "myth" that the, life-partner would also develop psoriasis as it is contagious in nature, but which is not true. Psoriasis is not transmitted by living together or by making sexual relationship. Patients lose sexual desire due to genital discomfort & by a co morbidity of the genital skin/mucosa.

Patients with genital psoriasis feel uncomfoting; avoid sexual experience, poor in confidence for sexual relationships, which leads to reduced sexual desire. Women too are distressed because of dyspareunia with a tendency to avoid marriages [1].

So, myth that, psoriatic should not marry, is a wrong. Unfortunately only 17% have a desirable knowledge that should not avoid marriage on the disease ground.

A myth about contagiousness, even though it is autoimmune disease

It is a genetic condition triggered by environmental immune system & immunity concerned & not contagious [30]. Un fortunately there is a discriminate with psoriatics as seen in India [31].

So to avoid stigmatization community awareness and knowledge about psoriasis must be improved, which will lead to improve QOL, facilitate social mixing [7].

There was 22% awareness about this in medical students.

Thus averagely (Q 8, 9, 12, 16) 34.8% of students were aware of myths & misbelieves.

Overall average i.e. summation of headings A to F is 41%, where 100% of them heard about disease, if we ignore this A i.e. 100%, the average of B to F $(146/5) = 29.2$, corrected as 29.0%.

To conclude overall knowledge i.e. 29.0%, this was "poor."

To eradicate social stigmatisation in society, future doctors must be well-knowledge. Stigma among vitiligo and psoriasis population in brown-black skin shade of South Indian culture is by than that of light-skinned Caucasian societal backgrounds [32].

Conclusion

Out of 6 categories all students are 1st in ranking about to hear psoriasis, but are poor (below an average of 35%) in knowledge of it. Doctors were the topmost comparatively in spreading the knowledge. All students agree for the usefulness of this questioner.

So knowledge about, in-general, scientific & advanced knowledge, all were poor i.e. below the average of 35%. Except the hearing about word "psoriasis," all categories lie below average (35%) proving their "poor" knowledge about psoriasis. "Myths & misbelieves" towards the disease can't be eradicated unless they have a good scientific Knowledge. Knowledge can be improved by training of medicos, mass scale propaganda through Internet, TV, Magazines & dermatological exposure of psoriasis patients to the medical, paramedical health care workers by the skin specialists as well as by MBBS doctors especially in poor /under-developing counties.

Conflict of Interests: Nil

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