

Indian psoriasis research: An impact assessment through bibliometric studies

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ABSTRACT

Psoriasis is a chronic skin disease and epidemiology shows its occurrences more in western countries than Africans or Asians. Different literature reviews have highlighted the prevalence of this disease world wide. The research and publishing trends in a given field very often being described through bibliometric and citation studies, but in the field of psoriasis it has not been reported so far except some studies on dermatology. This study was aimed to analyze the patterns of publication in psoriasis research and highlight the impact of Indian psoriasis research over global scenario through citation analysis. The bibliographic data for this study has been obtained from Scopus database for the period of 1973-2012. The data has been retrieved using Medical Subject Headings (MeSH) term 'psoriasis' available in title, abstract and keyword field and analyzed for Indian contribution. The citation count has been taken as the number of citations received by the papers since it has been published. This study shows that the Indian scientists have published 849 articles, which is 1.97% of global research output (42959 articles). United States of America (USA) is the most productive country. On the basis of quantitative publication output, India ranked 11th in global psoriasis research output. India has international collaboration with 17 countries and most of the collaboration came from USA. India is far behind in psoriasis research output in spite of prevalence of this disease in Indian population. There is a need of setting up of priorities and research facility in order to improve the better treatment facility and enhancing research output with better drug testing and administration.

Keywords: Bibliometric studies, citation analysis, Indian contribution, psoriasis, skin disease

INTRODUCTION

Psoriasis is a chronic, recurrent inflammatory skin disease. The word "psoriasis" comes from Greek words meaning "the state of having the itch". The obvious sign of psoriasis is the color change associated with the plaques (the raised patches on the skin). People's experience of itch can vary from none at all to severe. A patient with psoriasis complains about troublesome sensations, including burning, hurting and stinging. Life becomes miserable by the chronic itchy, scaly and inflamed "plaques" that may occur on any part of the

skin and scalp. It is a chronic disease and has its affect globally. About 2-3% of the population in the United Kingdom (UK) is affected by this disease. Fair skinned people, wherever they live, are equally affected by psoriasis, but it is much less common in African, Caribbeans, Asians and virtually non-existent in Inuit people and Native Americans. Various studies show the prevalence of the psoriasis in different regional and ethnic groups and their effect on human population.^[1-5] The survey of global psoriasis epidemiology reveals its prevalence in different countries of the world and for some areas its prevalence in different age group. Prevalence of psoriasis in children, it is 0% in Taiwan, 0.71% in Germany and 2.1% in Italy. In adults, it is 5.20% in France. The North-East and South Europe reported higher values than the UK, specifically 3.73% in Denmark, 4.82-8.50% in Norway. In children, the incidence estimate reported (United States) was 40.8/100,000 person-years. In adults, it varied from 78.9/100,000 person-years (United States) to 230/100,000 person-years (Italy).^[6] The prevalence of psoriasis in India is not as much as in the western countries, still some cases has been reported.^[7]

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Psoriasis on its own can be a serious disease and more than enough for someone to cope with, but when it is complicated by other diseases such as arthritis,^[8] heart attack,^[9] diabetes^[10] and psychology^[11] making more adverse effect on health. In today's National Health Services, there is great emphasis on informing and empowering patients. This applies to as much people with long-term (chronic) skin problems such as psoriasis and to those with other diseases.^[12] Such kind of literature, which has enunciated a much debate on the different issues related to this disease and attracted the attention of medical scientists towards it for diagnostic and in search of better treatment solution to cure it. At the same time, the scientists are also looking ahead to the pertinent literature on such topics as well as publishing their results in prominent places in order to fetch the attention of the masses through these publications. Some bibliometric studies on skin related disease have been reported in literature, but their major focus areas was not psoriasis as a pure subject, but were related to dermatoscopy^[13] or dermatology.^[14-16] An editorial in 'Journal of the European Academy of Dermatology and Venereology' in 2010 just touched the psoriasis research efforts.^[17] No other bibliometric studies dedicated to either this disease or any country specific research output by subject or country have been traced so far. This bibliometric study is undertaken with a view to understand the patterns of psoriasis literature output globally and to analyze the contributions and impact of Indian scientists.

MATERIALS AND METHODS

The data for this study was collected from Scopus multidisciplinary bibliographic database available over <http://www.scopus.com/home.url>. The keyword 'Psoriasis' available in article titles, abstracts and keywords, has been used to retrieve the bibliographic data. "India" has been used as the limiting factor for the country of affiliation of the authors, in order to retrieve the data for India. The following string has been used to retrieve bibliographic data.

(TITLE-ABS-KEY ("Psorias*") AND PUBYEAR > 1972 AND PUBYEAR < 2013

(TITLE-ABS-KEY ("Psorias*") AND AFFIL (India) AND PUBYEAR > 1972 AND PUBYEAR < 2013

The citations scored by the each paper are taken as the number of citation received by the articles since it is published. For the international collaboration, each articles published from India was manually analyzed to see the

collaboration by Indian authors with international authors. The data thus obtained was subjected to data analysis and interpretation of results.

RESULTS

Global Research Output on Psoriasis Literature

It is found that there were 42959 articles in Scopus database during the study period 1973-2012. On analysis of the growth of literature in a 10 year time period, the literature on psoriasis has grown at the rate of 16.61%/year during 1973-1982. During 1983-1992, the growth was 28.94% and during 2003-2012 there has been 119.90% growth. The overall growth rate of 40 years is found to be 230.64%. This shows an increasing trend of research publication in the field of psoriasis. The percent growth rate was calculated as straight-line growth rate formula.

The psoriasis literature came from 138 countries of the world. Out of these, there were 29 countries which have contributed at least one paper on psoriasis, 9 countries published 2 papers, 7 countries published 3 and 4 papers each, 13 countries have published 5-10 papers, 20 countries have published 1-50 papers, 11 countries have published 51-100 papers and 27 countries have published 101-600 papers on a different area of psoriasis research. During these 40 years, the individual countries have also shown an increasing trend of research publication. Table 1 presents the top 15 most productive countries of the world in terms of a number of publications. United States of America (USA) produced the highest (9257) publications with 21.6% share of world output. As far as India's contribution is concerned, Indian scientists contributed 849 articles during 1973-2012. The publication share of India is about 2% of global production of literature on psoriasis and it holds 11th rank in overall publication. These 15 countries of the world have contributed 32611 articles, which is 75.9% of total global contributions.

In terms of citation impact, it is found that the articles published from UK have scored the highest number of citations (48403 citations) on an average rate of 12.48 citations per paper. Seven countries have more citations than group average citations (21994). These countries other than UK are Germany (41331), Canada (34884), France (30864), Italy (30168), Netherlands (27401) and Japan (24153). Indian papers have scored a total of 4690 citations and is ranked 14th on this parameter. On the basis of average citation per paper (ACPP), it is found that there are seven countries which

Table 1: Top 15 most productive countries of psoriasis research

Country	Total publication					Publication Share					TC	ACPP
	1973-1982	1983-1992	1993-2002	2003-2012	1973-2012	1973-1982	1983-1992	1993-2002	2003-2012	1973-2012		
USA	958	1354	1867	5088	9267	15.5	18.8	20.1	24.9	21.5	18244	1.9
Germany	564	558	1075	2098	4295	9.1	7.7	11.6	10.3	9.9	41331	9.6
United Kingdom	488	723	935	1732	3878	7.9	10.0	10.1	8.5	9.0	48403	12.4
Italy	272	392	581	1365	2610	4.4	5.4	6.2	6.7	6.0	30168	11.5
France	317	344	512	1112	2285	5.1	4.7	5.5	5.4	5.3	30864	13.5
Japan	100	285	557	847	1789	1.6	3.9	6.0	4.1	4.1	24153	13.5
Netherlands	107	252	322	679	1360	1.7	3.5	3.4	3.3	3.1	27401	20.1
Spain	52	78	249	954	1333	0.8	1.0	2.6	4.6	3.1	11917	8.9
Canada	57	101	191	764	1113	0.9	1.4	2.0	3.7	2.5	34884	31.3
Sweden	185	191	152	331	859	3.0	2.6	1.6	1.6	2.0	18163	21.1
India	94	61	106	588	849	1.5	0.8	1.1	2.8	1.9	5105	6.0
Poland	159	80	104	479	822	2.5	1.1	1.1	2.3	1.9	4321	5.2
Switzerland	90	129	171	373	763	1.4	1.8	1.8	1.8	1.7	16640	21.8
Denmark	78	200	174	322	774	1.2	2.7	1.8	1.5	1.8	13627	17.6
Turkey	2	15	120	477	614	0.0	0.2	1.3	2.3	1.4	4690	7.6
World total	6158	7181	9259	20361	42959	100	100	100	100	100	329911	7.6

TC=Total citation, ACP=Average citation per paper

have ACP higher than group average (13.50 citations). These countries are Canada, Switzerland, Sweden, Netherlands, Denmark, France and Japan. India’s average citation rate was 6.01 and ranked 13th on this parameter.

Pattern of Indian Psoriasis Research Output During 1973-2012

The Indian psoriasis research profile in terms of total publication output, citation counts and ACP, international collaboration and share during 1973-2012 is given in Table 2. It reveals that the cumulative Indian research output during the study period of 40 years is 849 publications and the overall rate of growth is 127.5%. In 1973-1982, there were 94 papers and registering *h*-index value of 5. Growth was slowed down to only 61 papers in 1983-92 (-35.11% growth). However in 1993-2002 there were 106 papers (73.77% growth) and registered *h*-index value of 18. There was a steep rise in publication in 2003-2012 with 588 papers (454.72% growth) with *h*-index value of 25. Growth of publication during the period of 2003-2012 is highest and its impact can be seen and claimed as a total cure of psoriasis through administration of drug and plant extract. This was reported in different news dailies in 2011.^[18] This is one of the aspect, which can be considered as high growth of research in the area of psoriasis during this period.

During 1973-1992, there was no international collaborated paper on psoriasis by Indian authors. However, during 1993-2002 four papers were published in international

collaboration, which increased to 42 (7.14%) during 2003-2012. It shows an increasing trend of international collaboration by Indian authors.

During the study period, India has collaborated with 17 countries of the world in Psoriasis research. Among the collaborative partners of India, USA had the highest publication share (12 papers) and was followed by UK and Saudi Arabia. Table 3 provides the detailed information of countries with which India had collaborated.

Indian Psoriasis Research in Context of Different Subject Field, 1973-2012

Indian psoriasis research output in the context of different subject area reveals that 67% of research has been carried out in the three major fields. These are medicine (687 papers), followed by Pharamcology, Toxicology and Pharamceutics (15% share, 155 papers) and Biochemistry, Genetics, Molecular Biology (8% share, 83 papers). The other disciplines have also shared some of the research output of Indian Psoriasis research [Table 4]. The other subjects such as agriculture, chemical engineering, environmental science and neuroscience have less than fifteen publications during the period of study.

Research Profile of Major Indian Institutions in Psoriasis, 1973-2012

A total of 160 Indian institutes have produced 849 articles on different areas of Psoriasis. Of these, 16 institutes produced

341 (41.2%) papers of the total Indian output. Out of these, only three institutions, i.e., Postgraduate Institute of Medical Education and Research, Chandigarh, All India Institute of Medical Science (AIIMS), New Delhi and Government Medical College, Srinagar have produced more than 20 papers and their share in the total output is 17.90% [Table 5].

The average rate of citations for these 16 institutes is 148.81 and only 5 institutes have higher ACPP than

Table 2: Indian psoriasis research output during 1973-2012

Year block	TP	TC	ACPP	ICP	% ICP	h Index
1973-1982	94	78	0.83	0	0.00	5
1983-1992	61	225	3.69	0	0.00	5
1993-2002	106	1176	11.09	4	3.77	18
2003-2012	588	3629	6.17	42	7.14	25
Total	849	5108	5.44 (average)	46	2.72 (average)	13.25 (average)

TP=Total publication, TC=Total citation, ACPP=Average citation per paper, ICP=International collaborated paper

Table 3: India's international collaborative research during 1973-2012

Collaborative country	No. of papers	% ICP
United States	12	26.09
United Kingdom	8	17.39
Saudi Arabia	5	10.87
Canada	4	8.70
Australia	3	6.52
France	3	6.52
Brazil	1	2.17
Germany	1	2.17
Libyan Arab Jamahiriya	1	2.17
Netherlands	1	2.17
Oman	1	2.17
Panama	1	2.17
Romania	1	2.17
Singapore	1	2.17
Spain	1	2.17
Switzerland	1	2.17
Croatia	1	2.17
Total		

ICP: International collaborated paper

Table 4: India's psoriasis research in context of different sub-fields

Subject area	Total publication				
	1973-1982	1983-1992	1993-2002	2003-2012	1973-2012
Medicine	94 (95)	57 (81)	95 (74)	441 (61)	687 (67)
Pharmacology, toxicology and pharmaceuticals	1 (1)	3 (4)	10 (8)	141 (20)	155 (15)
Biochemistry, genetics and molecular biology	2 (2)	5 (7)	13 (10)	63 (9)	83 (8)
Engineering	1 (1)	1 (1)	1 (1)	19 (3)	22 (2)
Chemistry	0 (0)	0 (0)	3 (2)	15 (2)	18 (2)
Immunology and microbiology	1 (1)	1 (1)	2 (2)	11 (2)	15 (1)

Figure in bracket shows percentage share

group average (148.81). The highest citation was received by Postgraduate Institute of Medical Education and Research (805 citations); followed by AIIMS, New Delhi (442 citations); Dr. Harisingh Guar University, Sagar (183 citations); University Institute of Pharmaceutical Sciences, Chandigarh (178 citations) and Maulana Azad Medical College, Delhi (169 citations).

Research Profile of Most Productive Authors Engaged in Psoriasis Research

On analysis of authorship pattern, it is found that 2688 Indian authors individually or in collaboration with others have published 849 papers on psoriasis during 1973-2012. Out of these, 98 papers have been written as single authored and 750 papers appeared in joint authorship. This reflects the collaborative nature of research in the field of psoriasis. Table 6 presents the most prolific authors with more than ten publications on psoriasis. Collectively these authors have contributed 33.45% (284 papers) of total Indian psoriasis research output with average productivity of 18.93 papers per author. Only three authors have their contribution more than group average (18.93). These authors are Inderjeet J. Kaur (54 papers), Bhushan R. Kumar (49 Papers) and Sunil M. Dogra (28 Papers). These 15 authors have received 2433 citations with an ACPP of 7.86. Six authors have registered higher ACPP than group average. These are S. Handa (23 citations), O.P. Katare (16.40 citations), Inderjeet J. Kaur (11.54 citations), Bhushan R. Kumar (11.31 citations) and Virendra Nath Sehgal (11.22 citations). Seven authors have achieved more *h*-index value than group average (6.07) of authors.

Highly Cited Indian Papers on Psoriasis Research

Table 7 presents ten highly cited papers by Indian authors. Out of these 535 Indian psoriasis articles, 28 papers have been published as international collaboration. Of these 535 papers, 294 appeared as journal articles, 13 as conference papers, 5 as editorial, 51 as letter, 8 as note items,

Table 5: Research profile of major Indian institutions engaged in research in psoriasis

Name of Indian institutes	TP	% share	TC	ACPP	h Index
Postgraduate Institute of Medical Education and Research, Chandigarh	106	12.49	805	7.59	16
All India Institute of Medical Sciences, New Delhi	25	2.94	442	17.68	9
Government Medical College, Srinagar	21	2.47	11	0.52	2
Jawaharlal Institute of Postgraduate Medical Education and Research, Pondicherry	20	2.36	116	5.80	6
Mysore Medical College, Mysore	19	2.24	61	3.21	5
Medical College and Hospital, Kolkata	17	2.00	10	0.59	2
Maulana Azad Medical College, Delhi	16	1.88	169	10.56	7
Banaras Hindu University Institute of Medical Sciences, Varanasi	16	1.88	47	2.94	4
Pandit Bhagwat Dayal Sharma Postgraduate Institute of Medical Sciences, Rohtak	14	1.65	77	5.50	5
Kasturba Medical College, Manipal	13	1.53	13	1.00	2
University Institute of Pharmaceutical Sciences, Chandigarh	13	1.53	178	13.69	6
Jamia Hamdard Faculty of Pharmacy, New Delhi	13	1.53	87	6.69	5
Sehgal Nursing Home, New Delhi	13	1.53	139	10.69	7
King Edward Memorial Hospital, Mumbai	12	1.41	34	2.83	4
Dr. Harisingh Gour University, Sagar	12	1.41	183	15.25	4
University College of Medical Sciences, New Delhi	11	1.30	9	0.82	1
Other 144 institutes					
Total					

TP=Total publication, TC=Total citation, ACPP=Average citation per paper

127 as review papers and 10 as short survey of different aspects of psoriasis. Of these cited papers, 483 papers appeared as collaborative articles and 55 appeared as zero collaboration and these papers have appeared in 195 journals.

DISCUSSION

On the basis of this bibliometric analysis, it can be concluded that the psoriasis research is being conducted throughout the globe. The Indian scientists are too active in this field and produced a substantial number of publication in this area, which makes it ranked 11th in comparison to most active countries such USA, Germany and UK. The prevalence of the psoriasis disease in these countries has also

Table 6: Research profile of prolific authors

Author name	Affiliation	TP	TC	ACPP	h index
Kaur, Inderjeet	Postgraduate Institute of Medical Education and Research, Chandigarh	54	623	11.54	16
Kumar, Bhushan	Postgraduate Institute of Medical Education and Research, Chandigarh	49	554	11.31	14
Dogra, Sunil	Postgraduate Institute of Medical Education and Research, Chandigarh	28	125	4.46	5
Sehgal, Virendra Nath	Sehgal Nursing Home, New Delhi	18	202	11.22	7
Saraswat, Abir	Indushree Skin Clinic, Lucknow	18	180	10.00	9
Thappa	Jawaharlal Institute of Postgraduate Medical Education and Research, Pondicherry	16	106	6.63	6
Kaur, Sukhjot	Dayanand Medical College and Hospital, Ludhiana	16	69	4.31	3
Kanwar, Amrinder Jit	Postgraduate Institute of Medical Education and Research, Chandigarh	15	51	3.40	3
Hajini	Government Medical College Srinagar, Srinagar	15	2	0.13	1
Bedi	Clinical Research Centre, Faridabad	12	25	2.08	3
Handa	Postgraduate Institute of Medical Education and Research, Chandigarh	12	276	23.00	7
Hussain	Government Medical College Srinagar, Srinagar	11	0	0.00	0
Katare	University Institute of Pharmaceutical Sciences India, Chandigarh	10	164	16.40	6
Basavaraj	Mysore Medical College, Mysore	10	56	5.60	5

TP=Total publication, TC=Total citation, ACPP=Average citation per paper

been highlighted in different case studies on psoriasis. The Indian papers on psoriasis initially scored less citations, but the papers published after 1993 have scored more citations in comparison to decades before. In terms of international collaboration in psoriasis research until 1992, there were no papers appeared with international collaboration but at later stage it was geared up and there was increased collaboration with international authors. Maximum collaboration of India was made with USA. In the context of institutional participation, Postgraduate Institute of Medical Education and Research, Chandigarh was the most productive Indian institution engaged in psoriasis research. There were also instances where private medical hospitals have also contributed substantial research papers on this subject.

Based on this study, it can be concluded that the profile of Indian psoriasis research is quite low in comparison to

Table 7: Highly cited Indian research papers on psoriasis, 1973-2012

Author	Bibliographic details	No. of citations
Grover and Yadav	Pharmacological actions and potential uses of <i>Momordica charantia</i> : A review. <i>Journal of Ethnopharmacology</i> , 93 (1) (2004) 123-132	199
Pandya, Dhalla and Santani	Angiogenesis-a new target for future therapy. <i>Vascular Pharmacology</i> , 44 (5) (2006) 265-274	137
Shishodia, Chaturvedi, Aggarwal	Role of Curcumin in Cancer Therapy. <i>Current Problems in Cancer</i> , 31 (4) (2007) 243-305	125
Menon, Sudheer	Antioxidant and anti-inflammatory properties of curcumin. <i>Advances in Experimental Medicine and Biology</i> , 595 (2007) 105-125	123
Agarwal, Katare and Vyas	Preparation and in vitro evaluation of liposomal/niosomal delivery systems for antipsoriatic drug dithranol. <i>International Journal of Pharmaceutics</i> , 228(Feb) 2001 43-52	100
Dubey <i>et al.</i>	Dermal and transdermal delivery of an anti-psoriatic agent via ethanolic liposomes. <i>Journal of Controlled Release</i> 123 (2) (2007) 148-154	73
Dastidar, Rajagopal and Ray	Therapeutic benefit of PDE4 inhibitors in inflammatory diseases. <i>Current Opinion in Investigational Drugs</i> , 8 (5) (2007) 364-372	67
Gautam and Jachak	Recent developments in anti-inflammatory natural products. <i>Medicinal Research Reviews</i> , 29 (5) (2009) 767-820	65
Mattoo <i>et al.</i>	Psychiatric morbidity in vitiligo: Prevalence and correlates in India. <i>Journal of the European Academy of Dermatology and Venereology</i> , 16 (6) (2002) 573-578	61
Kumar, Dhar, Handa and Kaur	Methotrexate in childhood psoriasis. <i>Pediatric Dermatology</i> , 11 (3) (1994) 271-273	61

other countries such as USA, Germany and UK. Keeping the view the recent rise in Psoriasis prevalence cases in India, which has been highlighted in a different case studies in recent times, there is a need to set up research and developmental center and investment by government bodies to enhance the research and help in better facility for eradication of this disease. Some private hospitals are very active in this area, but government need to setup specialized treatment center.

REFERENCES

- Tollefson MM, Crowson CS, McEvoy MT, Maradit Kremers H. Incidence of psoriasis in children: A population-based study. *J Am Acad Dermatol* 2010;62:979-87.
- Kurd SK, Gelfand JM. The prevalence of previously diagnosed and undiagnosed psoriasis in US adults: Results from NHANES 2003-2004. *J Am Acad Dermatol* 2009;60:218-24.
- Plunkett A, Merlin K, Gill D, Zuo Y, Jolley D, Marks R. The frequency of common nonmalignant skin conditions in adults in central Victoria, Australia. *Int J Dermatol* 1999;38:901-8.
- Ahacic K, K reholt I. Prevalence of musculoskeletal pain in the general Swedish population from 1968 to 2002: Age, period, and cohort patterns. *Pain* 2010;151:206-14.
- Olsen AO, Grijbovski A, Magnus P, Tambs K, Harris JR. Psoriasis in Norway as observed in a population-based Norwegian twin panel. *Br J Dermatol* 2005;153:346-51.
- Parisi R, Symmons DP, Griffiths CE, Ashcroft DM, Identification and Management of Psoriasis and Associated Comorbidity (IMPACT) project team. Global epidemiology of psoriasis: A systematic review of incidence and prevalence. *J Invest Dermatol* 2013;133:377-85.
- Dogra S, Yadav S. Psoriasis in India: Prevalence and pattern. *Indian J Dermatol Venereol Leprol* 2010;76:595-601.
- Horreau C, Pouplard C, Brenaut E, Barnetche T, Misery L, Cribier B, *et al.* Cardiovascular morbidity and mortality in psoriasis and psoriatic arthritis: A systematic literature review. *J Eur Acad Dermatol Venereol* 2013;27 Suppl 3: 12-29.
- Gelfand JM, Neimann AL, Shin DB, Wang X, Margolis DJ, Troxel AB. Risk of myocardial infarction in patients with psoriasis. *JAMA* 2006;296:1735-41.
- Dreiherr J, Freud T, Cohen AD. Psoriatic arthritis and diabetes: A population-based cross-sectional study. *Dermatol Res Pract* 2013;2013:580404.
- Richards HL, Fortune DG, Griffiths CE. Adherence to treatment in patients with psoriasis. *J Eur Acad Dermatol Venereol* 2006;20:370-9.
- Mitchell T, Penzer R. *Psoriasis: At Your Fingertips Guide*. USA: Class Publishing; 2005.
- Tasli L, Ka ar N, Argenziano G. A scientometric analysis of dermoscopy literature over the past 25 years. *J Eur Acad Dermatol Venereol* 2012;26:1142-8.
- Jemec GB, Nybaek H. A bibliometric study of dermatology in central Europe 1991-2002. *Int J Dermatol* 2006;45:922-6.
- Smith DR. Bibliometrics, dermatology and contact dermatitis. *Contact Dermatitis* 2008;59:133-6.
- Dunst KM, Burgdorf WH, Huemer GM, Zelger B. Analysis of original contributions in three dermatology journals. *J Am Acad Dermatol* 2005;52:355-9.
- Smith DR. A new view on psoriasis research efforts. *J Eur Acad Dermatol Venereol* 2010;24:365-6;366.
- Drug promises total cure for psoriasis patients. Newspaper Article. *Times of India*, February 9, 2011. Available from: <http://www.articles.timesofindia.indiatimes.com/keyword/psoriasis>. [Last accessed on 2014 Jan 27].

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