A Survey of Nigerian Dermatologists on the Management of Vitiligo

Ehiaghe L. ANABA[1] *FWACP, FMCP, MSc Dermpath,* **Adekunle O. GEORGE**[2] *FMCP,* **Adebola O OGUNBIYI**[2] *FMCP, FWACP, dip derm (Lond).*

[1]Department of Medicine, Lagos State University Teaching Hospital, Lagos, Nigeria.

[2]Department of Medicine, University College Hospital, Ibadan, Nigeria.

Corresponding author: Anaba EL, ehianaba@yahoo.com.

ABSTRACT

BACKGROUND: The prevalence of vitiligo varies from 2-6% in different parts of Nigeria. Modalities of treatment of vitiligo vary and there are concerns that the strategy for management of vitiligo by Nigerian dermatologists is not uniform.

AIMS AND OBJECTIVES: To determine attitudes and management practices of vitiligo among Nigerian dermatologists.

METHODS: A survey was carried out among 43 of the 50 dermatologists in the country who attended the 4th annual general meeting and scientific conference of the Nigerian Association of Dermatologists in 2010. Data was analyzed using SPSS16.

RESULTS: The response rate was 88.3%. All the dermatologists (42.1% females and 57.9% males) agreed that vitiligo should be actively treated. Eight-eight (88%) percent agreed that vitiligo is partially a cosmetic problem and partially a disease and 91.9% educate their patients about vitiligo. Successful treatment was defined mainly as re-pigmentation by 100% and the most important goal of management was stabilization of disease (31.4%) followed by patients satisfaction and acceptance of vitiligo (22.9%). Topical psolaren and sun exposure was the commonest method of treatment of both children and adults. Vitiligo in non-visible sites is treated by 85.7% of the dermatologists.

CONCLUSION: Nigerian dermatologists all agree that vitiligo needs to be actively treated, although there are differences in their management strategies. A national guideline is required to harmonize the treatment strategy of vitiligo patients.

Keywords: Vitiligo, Nigerian Dermatologists, Management

INTRODUCTION

Vitiligo is an acquired progressive skin disease made up of well circumscribed depigmented patches that tend to enlarge over time, caused by the destruction of melanocytes in involved areas.[1] The prevalence of vitiligo varies from 2-6%[2-4] in different parts of Nigeria. Vitiligo, due to its' difference in colour from the normal skin can be psychologically devastating for the affected individuals with resultant impairment of quality of life.[6,7] Spontaneous repigmentation occurs in a few individuals but active treatment is required in a large number of people affected by vitiligo.[8,11]

Several treatment options are available for vitiligo.[8-11]Treatment options include; sunscreens, cosmetics, topical corticosteroids, psoralens (both topical and oral) plus ultraviolet A (PUVA), narrow-band UVB radiation (NBUVB), Excimer laser, topical immunomodulators, calcipotriol in combination with UV light and surgery. All of these methods have advantages and disadvantages and not all treatment modalities are ideal for every patient with vitiligo.[8-11]

Documented literature on the attitude of dermatologists, their opinions and management strategy for vitiligo are few.[12-15] These studies reveal inconsistent strategies by the dermatologists in the studied countries with regards to vitiligo management, which the authors found worrying with a call for national guidelines.

There are concerns that the attitude and approach

towards the management of vitiligo by Nigerian Dermatologists is not uniform.Management is based on personal readings, management strategies in conferences attended, opinions of peers and methods of treatment at the institution of training of the Dermatologist. This results in inconsistencies and variability between dermatologists and dermatology practices in treatment regimens for vitiligo. The aim of this study was to determine attitude and management practices of vitiligo among Nigerian dermatologists. The results of this study may lead to the development of a national guideline in the treatment of vitiligo.

METHOD

This was a cross sectional study. A self-administered questionnaire containing 17 questions was distributed to the 43 Dermatologists who attended the 4th annual general meeting and scientific conference of the Nigerian Association of Dermatologists held in 2010.As at 2010 in Nigeria, there were only 50 dermatologists. The survey questions included information regarding the dermatologists' practice, the estimated number of patients with vitiligo seen weekly, yearly during the past year and indications for active therapy. The dermatologists were asked to indicate their most important goal in the management of vitiligo patients. They were also asked their first choice of therapy for various clinical types of vitiligo (focal, generalized, segmental and universal vitiligo) both for children and adults. They were also asked to give their definition of a successful treatment and importance of Quality of life issues. Information regarding the maximum permissible treatment duration for topical steroids, oral psoralen plus sun (PUVASOL) therapy was also collected. Their attitudes on whether to treat vitiligo as a disease or cosmetic problem and whether to treat vitiligo when it is in a non-visible site were asked. Finally, they were asked about the body surface area percentage of vitiligo involvement beyond which they might consider depigmentation therapy. All relevant personal information of the dermatologists like gender, age, qualification and years of experience were collected. Their replies were collated manually at the end of the conference.

Data was analyzed using SPSS version 16.[16] Any item on the questionnaire that was not answered was not analyzed.

RESULTS

Forty three dermatologists were in attendance at this conference, of which 38 responded to the questionnaire giving a response rate of 88.3%. The 7 non-responders had various reasons including little experience in the management of vitiligo patients. All 38 dermatologists were still in active practice.

Socio-demographic variables.

Out of the 38 dermatologists who responded, 42.1% were females and 57.9% were males. The age of the dermatologists ranged from 31-81years with a mean age of 45.4± 10.9 years. Ninety two percent of the dermatologists had at least two professional qualifications. Years of practice ranged from one to sixty years with 72.8% having practiced for between 1 and 10 years. Most of the dermatologists practice in government owned hospitals (78.4%), 7 out f the 38 practice in non-governmental hospitals (18.9%) and one person practices in both government and non-governmental hospitals (2.7%). Table 1 shows the socio-demographic distribution of the responding dermatologists.

Attitude of Dermatologists to Patient Education And Treatment.

When asked how many vitiligo patients were seen last year in their practices, 21.2% saw less than 10 vitiligo patients, 51.5% saw 11-30 vitiligo patients, 12.1% saw 31-50 vitiligo patients and 15.2% saw more than 50 vitiligo patients. About 65% of respondents saw more than 2 vitiligo patients per week. Sixty percent of the dermatologists agreed to vitiligo being purely a disease. Almost all the dermatologists (97.1%) said the quality of life is important in vitiligo management, 89.5% explain the cause of vitiligo to their patients and 85.7% of the dermatologists will treat vitiligo in a non-visible sites while 14.3% will not. Table 2 shows information about attitudes to patient education and treatment by dermatologists.

Treatment Goals

Figure 1a and 1b displays information on treatment indications, goals, expected outcomes and definition of a successful treatment. All the dermatologists (100%) will actively treat vitiligo based on either the patient's motivation, extent of disease, or activity of disease. The most reported goal in management is stabilization of the disease. Definition of a successful

treatment varied with 60% defining it as achievement of complete repigmentation. Less than 50% of dermatologists expected upto 30% re-pigmentation.

Table 3a shows the 1st choice of treatment for vitiligo patients among children. Except for generalized vitiligo, topical Psoralen was the first choice for treatment. Biologic agents were only chosen for universal vitiligo.

The treatment of choice for vitiligo in adults is shown in table 3b. First choice treatment was psoralen irrespective of the class of vitiligo but topical psoralen in focal and segmental vitiligo. The maximum duration for different treatment options is displayed in table 4. Most dermatologists (42.9%) would use topical steroids for a maximum of 1 – 3 months. The commonest duration of treatment for oral psoralen is 4 – 6 months, as reported by 39.3% of respondents. A similar trend of treatment duration was noted for topical psoralen (PUVSOL) as for oral psoralen.

DISCUSSION

The results of this study show differences in the management strategy of vitiligo by Nigerian dermatologists. The response rate in this survey was quite high and similar to the response rate from the Netherlands.[12] This high response makes this survey relevant as it reflects the management strategy of most of dermatology practices in the country. The results of this survey reflect a variation in opinions and practices for the management of vitiligo by dermatologists in Nigeria. Few articles have been written on the attitude and management of vitiligo by Dermatologists and would be used as comparison in this study.[12-15]

Majority of the Dermatologists felt that vitiligo is partially a cosmetic problem, although a large number agreed that it is a disease. Vitiligo is not a life threatening disease and mostly it is asymptomatic.[8,9] It is the sharp contrast with the dark skin colour that is worrisome. Similar to this study, following a survey of 454 dermatologists in Belgium by Ongenae et al,[15] some of the dermatologist thought that vitiligo is a partial cosmetic problem. However, the percentage of dermatologists who view vitiligo as a cosmetic problem in this study is higher than that reported in the Belgian study. This difference in opinion could be due to the difference in skin colour types as vitiligo is more obvious on the dark skin compared to Caucasian skin.

Most of the dermatologists surveyed will actively treat vitiligo and would even treat lesions in non-visible sites as a large percentage had agreed that vitiligo is a disease. Reports from surveys of dermatologists in Saudi Arabia and Belgium reported active treatment of vitiligo and treatment of lesions in non-visible areas as in this study.[13,14]This is however in contrast to the survey from the Netherlands where most of the dermatologists will adopt a wait and see approach.[12] The reason for this attitude from the Netherlands is that therapies are not effective and they had no consensus on treatment strategy. They would only treat if the vitiligo is rapidly spreading or there is psychological impact on the patient.

The goal of treatment differed with stabilization of the disease being the main goal. Complete re-pigmentation was defined as successful treatment. Disease stabilization which means stopping the spread of vitiligo patches on the skin is re-assuring to patients. Re-pigmentation makes the disease less obvious, less stigmatizing, patient is satisfied and quality of life is improved. The main goal of treatment in Saudi Arabia was repigmentation as in this study[13,14] and patient's satisfaction irrespective of re-pigmentation status was the definition of successful treatment in the Netherlands.[12]

First choice therapy in both children and adults for focal and segmental types of vitiligo is topical psoralen. These types of vitiligo cover a limited area making them suitable for topical treatment. However, in the guidelines of treatment for vitiligo,[1,11] topical steroid is the first choice of treatment in children and not psoralen as used by these dermatologists. In contrast to this study, topical steroid was the first choice treatment for focal and segmental vitiligo in Belgium, Saudi Arabia[14,15] and Netherlands.[12] First choice therapy for generalized and universal vitiligo in both children and adults was systemic psoralen. Generalized and universal vitiligo are more extensive disease making topical therapy inappropriate. Systemic psoralen is used for lesions involving >10% of the body surface area.[16] As at the time of this study, light therapies were unavailable in Nigeria, so systemic psoralen

and systemic steroids were the only available therapies for the treatment of extensive vitiligo. Now, light therapy is available at a few practices in Nigeria, it would be interesting to know if the strategy for treatment of extensive vitiligo by Nigerian dermatologists will have changed. Due to the fear of carcinogenesis and the logistic issues associated with the use of systemic psoralen, it is not a popular treatment modality in Saudi Arabia[13,14] and the Netherlands,[12] rather it is Excimer laser (308–311 nm) that is used and this mode of treatment is not available in Nigeria.

Most of the dermatologists in this study use topical steroids for a maximum of less than 3 months. This is an inadequate period of treatment as maximum repigmentation may take 4 months or longer with a 30– 40% response rate with 6 months of corticosteroid use.[16] Topical steroids were used for 5 months in Saudi Arabia and up to 12 months in the Netherlands; however, the authors were worried about the side effects of telangiectasia and atrophy following this duration of steroid use.[12,13] Oral or topical psoralen was used 4 to 6 months. This was due to the fear of skin aging, carcinogenesis, cost and cumbersome application. Studies from Saudi Arabia[13] and the Netherlands,[15] show a similar use of oral or topical psoralen for 6 months and longer. These authors were also worried about the potential for skin aging and carcinogenesis.

Biologic agents were rarely used in this study. Biologic agents were new in Nigeria as at the time of this study, they were expensive and hardly available.

CONCLUSION

Nigerian dermatologists do all agree that vitiligo needs to be actively treated though there some are differences in their management strategies. There is a need for a national guideline on treatment modalities for a better outcome for patients.

LIMITATIONS

The number of dermatologists surveyed were few and most of them practice in urban settings. Also, modern strategies for vitiligo management are not readily available in Nigeria making it difficult to compare management strategies with other recommended guidelines. A repeat survey in a few years with increase in the number of dermatologists in Nigeria will hopefully address these issues.

VARIABLE	FREQUENCY	PERCENTAGE
Age (yrs)		
31 - 40	18	47.3
41 - 50	12	31.6
> 50	8	21.0
Total	38	100
Sex		
Male	22	57.9
Female	16	42.1
Total	38	100.0
Years of Practice		
1 – 5	12	36.4
6 – 10	12	36.4
>10	14	27.2
Total	38	100.0
Active in Practice		
Yes	38	100.0
No	0	0.0
Total	38	100.0

TABLE 1. DEMOGRAPHIC DISTRIBUTION OF RESPONDENTS.

VARIABLE	PERCENTAGE
No. of vitiligo patients seen per week	
0 – 2	65.7
3 – 4	28.6
>4	5.7
Total	100.0
Nature of vitiligo	
Pure cosmetic problem	23.7
Partial cosmetic problem	60.5
Not a cosmetic problem	15.8
Total	100
Vitiligo is purely a disease	
Agree	60.0
Disagree	40.0
Total	100.0
QOL Important In MGT	
YES	97.1
NO	2.8
TOTAL	100.0

Table 2. Attitude of Dermatologist to Patient Education and Treatment

=12 YEARS	FOCAL	GENERALIZED	SEGMENTAL	UNIVERSAL
PSORALEN SYSTEMIC/PUVA	9.7%	48.4%	34.5%	20.7%
PUVA/MELADININE PAINT	58.1%	16.1%	58.6%	31.0%
TOPICAL STEROIDS	9.7%	16.1%	3.4%	3.4%
SYSTEMIC STEROIDS	12.9	12.9%	0.0%	13.8%
SYSTEMIC STEROID/PUVA	0.0%	0.0%	0.0%	3.4%
BIOLOGICAL AGENTS	0.0%	0.0%	0.0%	24.1%
DEPIGMENTATION	9.7%	6.5%	3.4%	3.4%
TOTAL	100%	100%	100%	100%

Table 3a: First Choice Of Treatment Modalities For The Types Of Vitiligo In Children.

>12 YEARS	FOCAL	GENERALIZED	SEGMENTAL	UNIVERSAL
SYSTEMIC PSORALEN /PUVA	21.9%	50.0%	34.5%	33.3%
PUVA/MELADININE PAINT	62.5%	6.7%	41.4%	6.7%
TOPICAL STEROIDS	0.0%	20.0%	6.9%	10.0%
SYSTEMIC STEROIDS	9.4%	16.7%	6.9%	13.3%
SYSTEMIC STEROID/PUVA	3.1%	0.0%	3.4%	0.0%
BIOLOGICAL AGENTS	0.0%	3.3%	3.4%	33.3%
DEPIGMENTATION	3.1%	3.3%	3.4%	3.3%
TOTAL	100%	100%	100%	100%

Table 3b: First choice of Treatment Modalities for the Types of Vitiligo in Adults.

VARIABLE	PERCENTAGE
TOPICAL STEROID	
1 – 3 MONTHS	42.9
4 – 6 MONTHS	35.7
1 – 2 YEARS	21.4
TOTAL	100.0
SYSTEMIC PSORALEN (PUVSOL)	
1 – 3 MONTHS	25.0
4 – 6 MONTHS	39.3
7 – 9 MONTHS	3.6
10 – 12 MONTHS	3.6
1 – 2 YEARS	28.6
TOTAL	100.0
TOPICAL PSORALEN /SUN (PUVSOL)	
1 – 3 MONTHS	16.0
4 – 6 MONTHS	40.0
7 – 9 MONTHS	8.0
10 – 12 MONTHS	8.0
1 – 2 YEARS	28.0
TOTAL	100.0

Table 4: Maximum Duration of Treatment For Different Modalities.

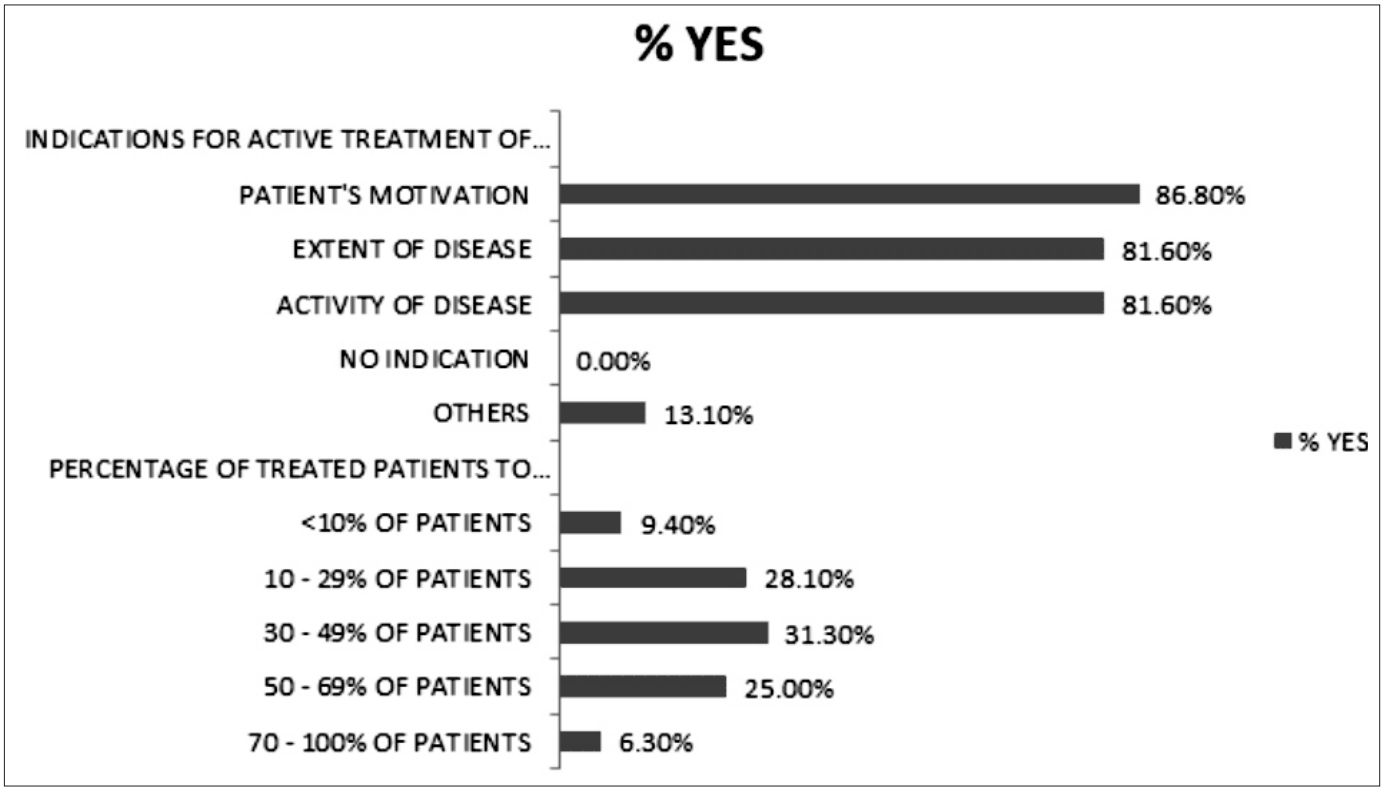

Figure 1a: Indications for Treatment and Percentage of Cases to Expect Stabilization/Repigmentation.

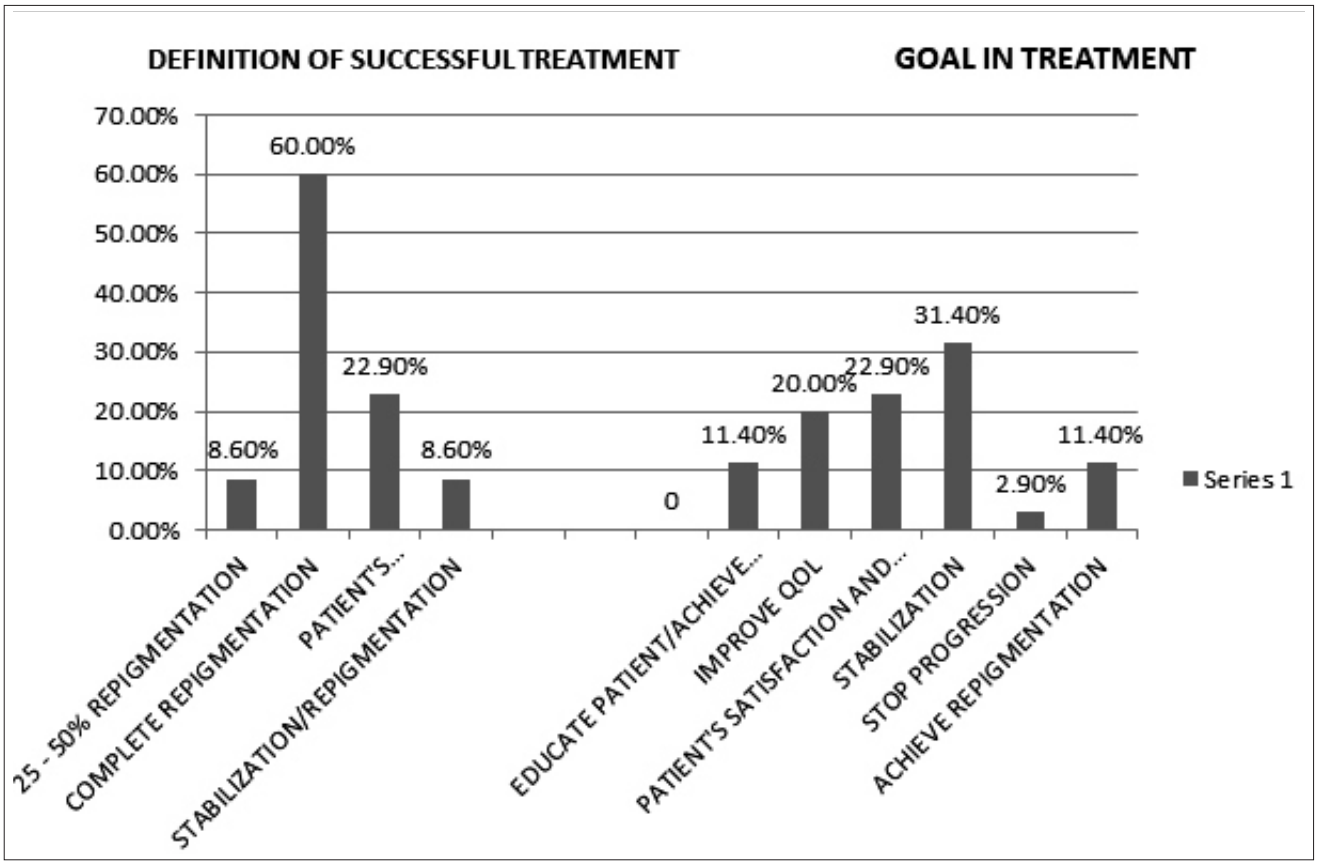

Figure 1b: Definition of a Successful Treatment and Goals In Management.

REFERENCES

1. Taieb A, Picardo M. The Definition And Assessment Of Vitiligo: A Consensus Report Of The Vitiligo European Task Force. Pigment Cell Res. 2008;20:27-35.
2. Yahaya H. Change In Pattern Of Skin Disease In Kaduna, North-Central Nigeria. Int. J Dermatol 2007;46:936-943.
3. Ayanlowo O, Olumide YM, Akinkugbe A, Ahamneze N, Otike-Odibi BI, Ekpudu VI, Nnaji T, Akolawole NA. Characteristics of vitiligo in Lagos, Nigeria. West Afr J Med. 2009;28:118-21.
4. Oninla OA, Oninla SO, Onayemi O, Olasode OA. Pattern of Paediatric Dermatoses at Dermatology Clinics in Ile-Ife and Ilesha, Nigeria. PaediatrInt Child Health. 2016;36:106-12
5. Altraide DD, George IO, Otike-Odibi B. Vitiligo: a Hospital-based Study in Southern Nigeria. African Journal Online. 2009; 4: 2.
6. Boza JC, Kundu RV, Fabbrin A, Horn R, Giongo N, Cestari TF. Translation, Cross-Cultural Adaptation and Validation of the Vitiligo-Specific Health-Related Quality of Life Instrument (VitiQoL) into Brazilian Portuguese. *An Bras Dermatol. 2015;90:358-62.*
7. , Cazzaniga S, , Raone B, Digiuseppe MD, Musumeci ML, , Fai D, Pellegrino M, Pezzarossa E, , Peccerillo F, Battarra VC, Sirna R, Patrizi A, Naldi L. To What Extent is Quality of Life Impaired in Vitiligo? A Multicenter Study on Italian Patients Using the Dermatology Life Quality Index.Dermatology. 2014;229:240-7.
8. Dayal S, Sahu P, Gupta N. Treatment of Childhood Vitiligo Using Tacrolimus Ointment with Narrowband Ultraviolet B Phototherapy. PediatrDermatol. 2016;33:646-651.
9. Dillon AB, Sideris A, Hadi A, Elbuluk N. Advances in Vitiligo: An Update on Medical

and Surgical Treatments J ClinAesthetDermatol. 2017;10:15–28.

10. Speeckaert R, van Geel N.Vitiligo: An Update on Pathophysiology and Treatment Options.Am J ClinDermatol. 2017;18:733-744.
11. Gianfaldoni S, Wollina U, Tchernev G, Lotti J, França K, Lotti T. Vitiligo in Children: A Review of Conventional Treatments. Macedonian Journal of Medical Sciences. 2018 Jan 25; 6(1):213-217.
12. Njoo D, Bossuyt PM, Westerhof W. Management of Vitiligo. Results of a Questionnaire Among Dermatologists in The Netherlands International Journal of Dermatol.1999; 38: 866–872.
13. AlGhamdi KM. A Survey of Vitiligo Management among Dermatologists in Saudi Arabia. JEADV 2009; 23: 1282–1288.
14. Ismail SA, Sayed DS, Abdelghani LN. Vitiligo Management Strategy in Jeddah, Saudi Arabia as Reported by Dermatologists and Experienced by Patients.J Dermatolog Treat. 2014;25:205-11.
15. Ongenae K, Van Geel N, De Schepper S, Vander Haeghen Y, Naeyaert J-M. Management of Vitiligo Patients and Attitude of Dermatologists Towards Vitiligo Eur J Dermatol 2004; 14: 177–81.
16. Halder RM, Brooks HL. Medical Therapies for Vitiligo. Dermatologic therapy. 2001;14:1-6.
17. Statistical Package For Social Sciences (SPSS) Version 16.0 For Windows; Released 2006. Chicago:SPSS Inc.