

## **Look at Seborrheic Keratoses: Patient Perspectives, Clinical Relevance, Medical Necessity a Closer and Implications for Management**

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### **Abstract**

Seborrheic keratosis (SK) is a benign tumour of the epidermal keratinocytes with varying morphological presentations. Seborrheic keratosis has an equal male to female preponderance with lesions commonly occurring in the fifth decade of life with reports of individuals under the age of 30 developing it. Seborrheic keratoses usually increase gradually with age. The present study focuses on to collect the opinions and perspectives of patients regarding their non symptomatic Seborrheic Keratoses and to capture prevalence data on symptomatic Seborrheic Keratoses among the patients.

**Keywords :** Seborrheic Keratoses, tumour, erythema, plaques, epidermal and eczema

### **1. Introduction**

The causative factors are not well established, but sunlight, genetics and human papilloma viruses are all thought to play a role in the etiology (1-3). Seborrheic keratosis commonly occurs over the face and trunk but can be seen on any part of the body. Clinically, Seborrheic keratosis presents as pigmented, round to oval, smooth surfaced or verrucous, dome shaped, pedunculated or acanthotic papules and plaques (4-6). The lesions of Seborrheic keratosis are generally asymptomatic, but if irritation occurs in the form of itching, erythema, bleeding and profusion of lesions, infection or underlying malignancy must be ruled out (6-11). A sudden increase in the size and number of lesions is found to be associated with other dermatological conditions like eczemas and also with malignancies. Seborrheic keratosis has many clinical variants and subtypes which must be taken under consideration for diagnostic purposes. As Seborrheic keratosis is one of the commonest dermatological lesions, this study is done to find out its psychosocial impact and reasons for it (11-15).

### **2. MATERIALS AND METHODS**

**Study Design:** Cross sectional study.

**Study Area:** Skin Outpatient Department Sree Balaji Medical College and Hospital

**Study Population:** All patients attending skin OPD, who are clinically diagnosed with seborrheic keratoses

**Study Method:** observational study.

**Sample Size:** 200

**Exclusion Criteria:**

Not consenting for the study.

**Inclusion criteria:**

- Consenting for the study.
- The recruited patients were subjected to the following,
- Full History Taking
- Thorough dermatological examination.
- Clinical photographs of the seborrheic keratosis.

**Statistical Analysis**

Statistical Analysis was done by Statistical Package for Social Sciences (SPSS Version 16.0) statistical analysis software. The values were represented in number (%) and mean  $\pm$  standard deviation. Suitable statistical tests of comparison were done. Continuous variables were analyzed with the unpaired test. Categorical variables were analysed with the Chi-Square Test and Fisher Exact Test. Statistical significance was taken as  $P < 0.05$ .

**SAMPLE SIZE ESTIMATION**

- Sample size was determined based on Study
- A Look at Seborrheic Keratoses: Patient Perspectives, Clinical Relevance, Medical Necessity and Implications for Management

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- In the present study, the most common locations where SKs were noted were the trunk (85% of patients) and the face (68% of patients).

### Description:

The confidence level is estimated at 95 % with a z value of 1.96 the confidence interval or margin of error is estimated at +/-7 Assuming p% =68 and q%=32 .

$$n = p\% \times q\% \times [z/e\%]^2$$

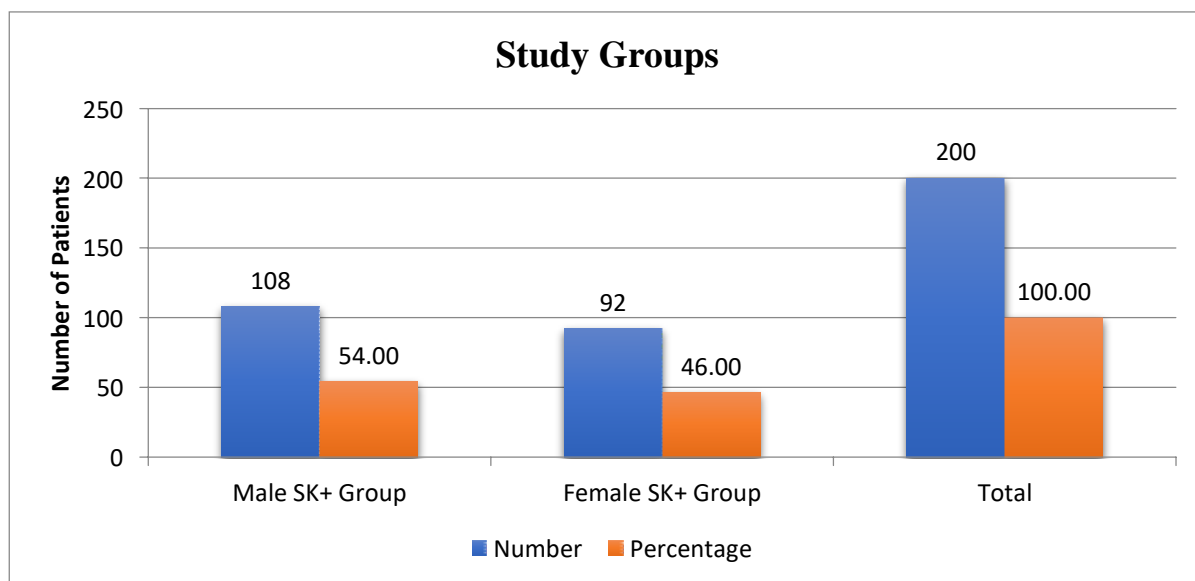
$$n = 68 \times 32 \times [1.96/7]^2$$

$$n = 189.55 \text{ (rounded up to 190)}$$

- Therefore 190 is the minimum sample size required for the study at 80% power.
- In my study I have recruited 200 subjects taking attrition into account

### 3. Results

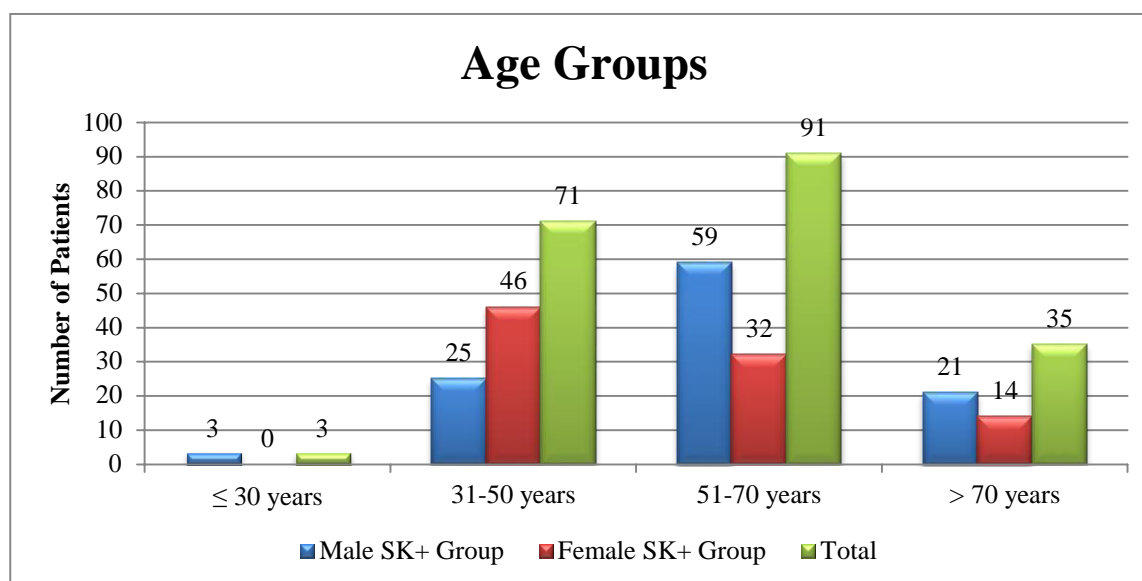
**Figure 1: Study Groups**



**Table 1: Study groups**

Study Groups	Male SK Group	Female SK Group	Total
Number	108	92	200
Percentage	54.00	46.00	100.00

**Figure 2: Age**



**Table 2: Age**

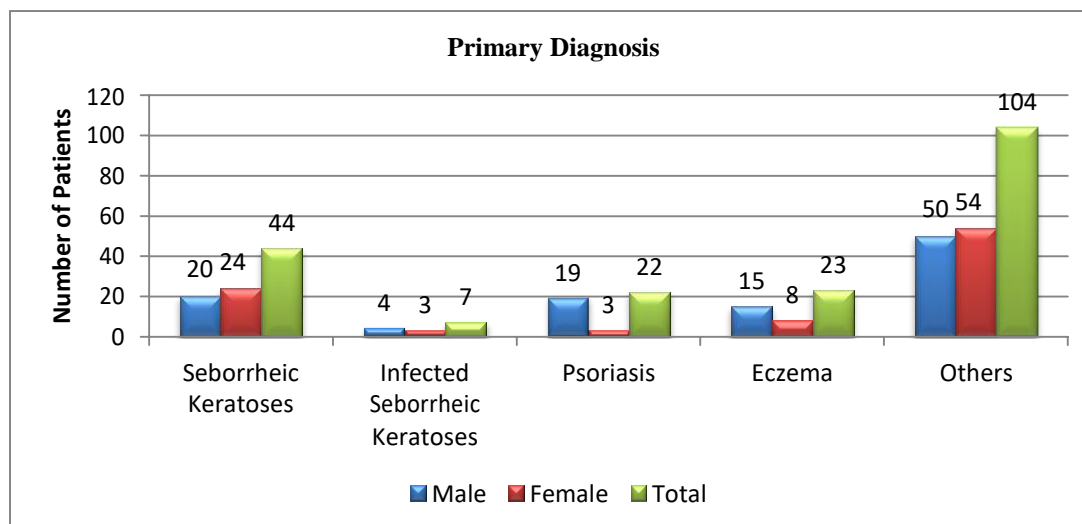
Age Groups	Male SK Group	%	Female SK Group	%	Total	%
≤ 30 years	3	2.78	0	0.00	3	1.50
31-50 years	25	23.15	46	50.00	71	35.50
51-70 years	59	54.63	32	34.78	91	45.50

> 70 years	21	19.44	14	15.22	35	17.50
Total	108	100.00	92	100.00	200	100.00

**Table 3: Age distribution**

Age Distribution	Male SK Group	Female SK Group
Mean	60.09	53.59
SD	15.48	13.30
P value Unpaired t Test		<u>&lt;0.001</u>

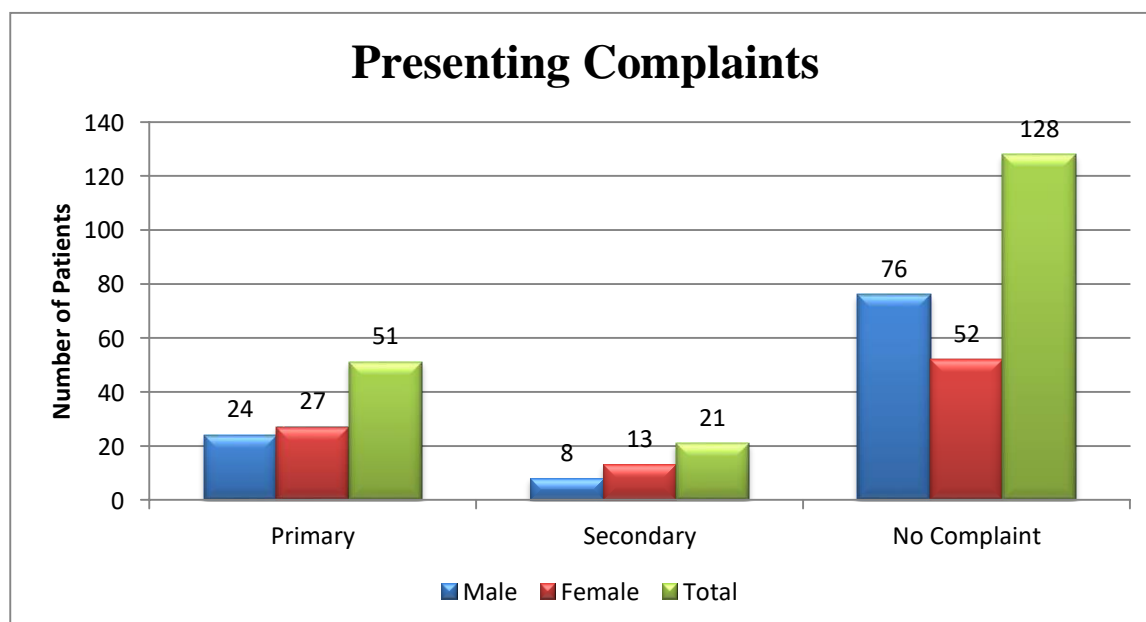
**Figure 3: Primary Diagnosis**



**Table 4: Primary diagnosis**

Primary Diagnosis	Male	%	Female	%	Total	%
Seborrheic Keratoses	20	18.52	24	26.09	44	22.00
Infected Seborrheic Keratoses	4	3.70	3	3.26	7	3.50
Psoriasis	19	17.59	3	3.26	22	11.00
Eczema	15	13.89	8	8.70	23	11.50
Others	50	46.30	54	58.70	104	52.00
Total	108	100.00	92	100.00	200	100.00
P value Chi Squared Test	0.230					

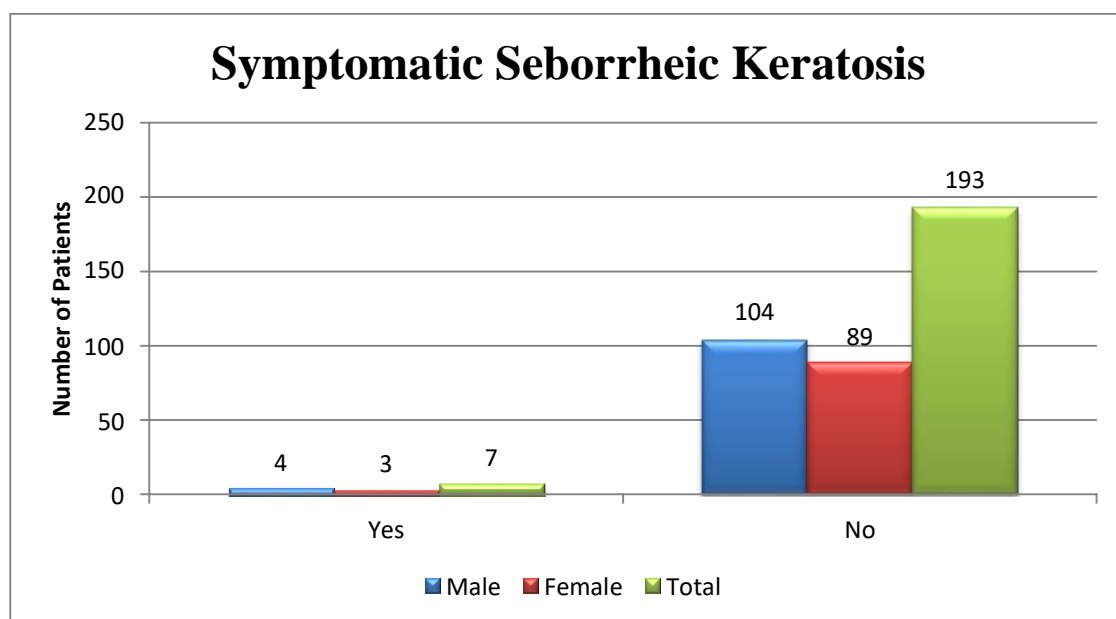
**Figure 4: Presenting Complaints**



**Table 5: Presenting complaints**

Presenting Complaints	Male	%	Female	%	Total	%
Primary	24	22.22	27	29.35	51	25.50
Secondary	8	7.41	13	14.13	21	10.50
No Complaint	76	70.37	52	56.52	128	64.00
Total	108	100.00	92	100.00	200	100.00
P value Chi Squared Test	<u>0.042</u>					

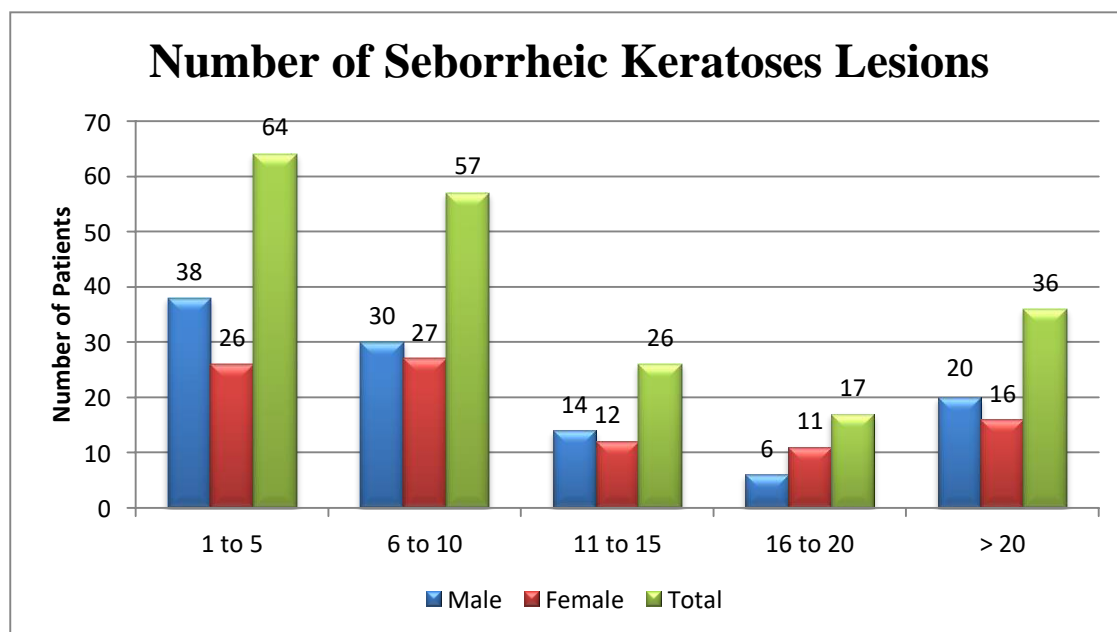
**Figure 5: Symptomatic Seborrheic Keratosis**



**Table 6: Symptomatic Seborrheic keratosis**

<b>Symptomatic Seborrheic Keratosis</b>	<b>Male</b>	<b>%</b>	<b>Female</b>	<b>%</b>	<b>Total</b>	<b>%</b>
Yes	4	3.70	3	3.26	7	3.50
No	104	96.30	89	96.74	193	96.50
Total	108	100.00	92	100.00	200	100.00
P value Chi Squared Test	0.865					

**Figure 6: Number of Seborrheic Keratoses Lesions**

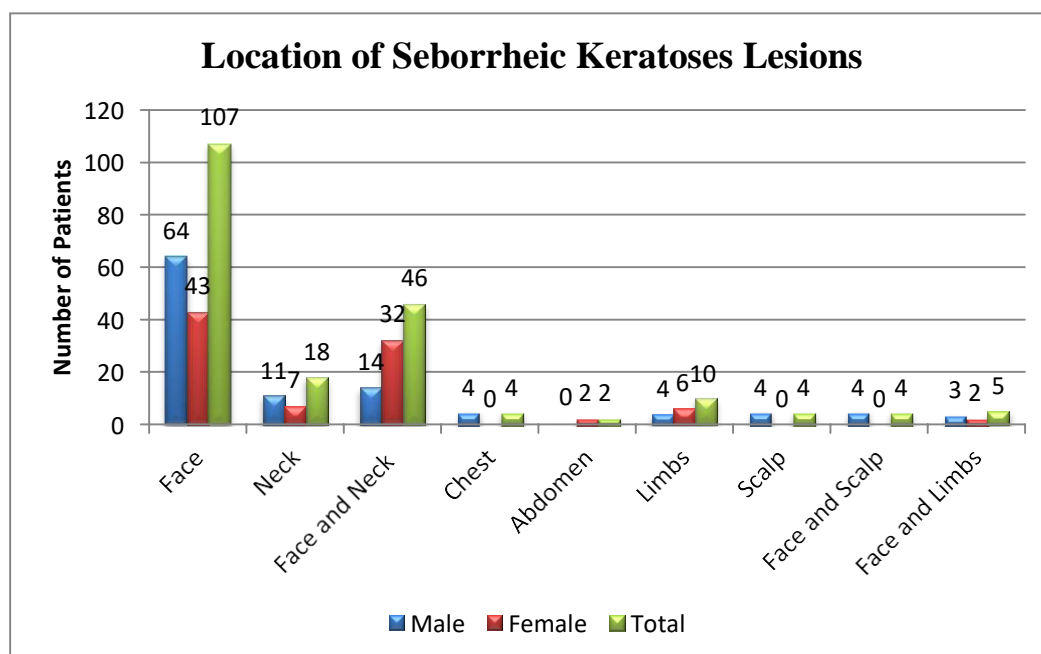




**Table 7: Number of seborrheic keratoses lesions**

Number of Seborrheic Keratoses Lesions	Male	%	Female	%	Total	%
1 to 5	38	35.19	26	28.26	64	32.00
6 to 10	30	27.78	27	29.35	57	28.50
11 to 15	14	12.96	12	13.04	26	13.00
16 to 20	6	5.56	11	11.96	17	8.50
> 20	20	18.52	16	17.39	36	18.00
Total	108	100.00	92	100.00	200	100.00
P value Chi Squared Test	0.522					

**Figure 7: Location of Seborrheic Keratoses Lesions**



## **Discussion**

In this cross sectional study, an analytical approach was adopted to collect the opinions and perspectives of patients attending dermatology department at Sree Balaji Medical College and Hospital regarding their asymptomatic seborrheic keratoses and to capture prevalence data on symptomatic seborrheic keratoses among the patients. Data collected from 200 selected subjects was tabulated, compared, analyzed and interpreted by using descriptive and inferential statistics based on the formulated objectives of the study. Study Groups Of the 200 patients studied, the majority of the subjects were males (54%) followed closely by females (46%) as shown in Table 1. This was also reported by Del Rosso JQ70 (16-19).

## **AGE**

With respect to the age groups table (Table 2), it was evident that majority of the male seborrheic keratoses study subjects were distributed in 51 -70 years age group (54.63%) and that majority of the female seborrheic keratoses study subjects were distributed in 31-50 years age group (50.00%). Overall majority of the seborrheic keratoses study subjects were distributed in 51 -70 years age group (45.50%). When analysed statistically using unpaired t test, the difference in the mean age of patients in group male SK (60.09 years) and group female SK (53.59 years) was found to be statistically significant ( $p < 0.05$ ) (Table 3). The mean age distribution was significantly higher in group male SK compared to group female SK by a mean difference of 6.51 years. The increase in mean age distribution was found to be 11% higher in group male SK compared to group female SK (20-21).

## **Primary Diagnosis**

With respect to the primary diagnosis table (Table 4), it was evident that majority of the male seborrheic keratoses study subjects were diagnosed as straight forward seborrheic keratoses (18.52%) followed by psoriasis (17.59%). Among female seborrheic keratoses study subjects majority were diagnosed as straight forward seborrheic keratoses (26.09%) followed by eczema (8,70%). Overall majority of seborrheic keratoses study subjects were diagnosed as straight forward seborrheic keratoses (22.00%) followed by eczema (11.50%). When analysed statistically using chi squared test, the difference in the primary diagnosis between group male SK and group female SK was found to be statistically not significant ( $p > 0.05$ ).

## **Symptomatic Seborrheic Keratoses**

With respect to the symptomatic seborrheic keratoses table (Table 6), it was evident that majority of the male seborrheic keratoses study subjects had asymptomatic seborrheic keratosis (96.30%) and that majority of the female seborrheic keratoses study subjects had asymptomatic seborrheic keratosis (96.74%). Overall majority of seborrheic keratoses study subjects had asymptomatic seborrheic keratosis (96.50%). When analysed statistically using chi squared test, the difference in incidence of symptomatic seborrheic keratoses between group male SK (3.70%) and group female SK (3.26%) was found to be statistically not significant ( $p > 0.05$ ) (23-25).

## **Number of Seborrheic Keratoses Lesions**

With respect to the number of seborrheic keratoses lesions table (Table 7), it was evident that majority of the male seborrheic keratoses study subjects had below 10 lesions (62.97%). Among female seborrheic keratoses study subjects, majority had below 10 lesions (58.61%). Overall majority of seborrheic keratoses study subjects had below 10 lesions (60.50%). When analysed statistically using chi squared test, the difference in the number of seborrheic keratoses lesions between group male SK and group female SK was found to be statistically not significant ( $p > 0.05$ ).

## **Location of Seborrheic Keratoses Lesions**

With respect to the location of seborrheic keratoses lesions table (Table 8), it was evident that majority of the male seborrheic keratoses study subjects presented with lesions in face and face and neck (72.22%) and majority of female seborrheic keratoses study subjects too presented with lesions in face and face and neck (81.52%). Overall majority of seborrheic keratoses study subjects presented with lesions in face and face and neck (76.50 %). When analysed statistically using chi squared test, the difference in the location of seborrheic keratoses lesions between group male SK and group female SK was found to be statistically significant ( $p < 0.05$ ).

The incidence of location of seborrheic keratoses lesions in face was significantly higher in group male SK compared to group female SK by a mean difference of 12.52 percentage points and was found to be 21% higher in group male SK compared to group female SK. The incidence of location of seborrheic keratoses lesions in face and neck was significantly higher in group female SK compared to group male SK by a mean difference of 21.82 percentage points and was found to be 63% higher in group female SK compared to group male SK (26-27).

These findings are in contrast to studies done by Gill D et al and Del Rosso JQ 10 in which the trunk was the commonest site for the location of seborrheic keratoses whereas only 6 people in our study had lesions on the trunk.

## **Awareness about Seborrheic Keratoses**

With respect to the awareness about seborrheic keratoses table (Table 9), it was evident that majority of the male seborrheic keratoses study subjects were not aware (97.22%) and majority of female seborrheic keratoses study subjects too were not aware (89.13%). Overall majority of seborrheic keratoses study subjects were not aware (93.50 %). When analysed statistically using chi squared test, the difference in the awareness levels about seborrheic keratoses between group male SK and group female SK was found to be statistically significant ( $p < 0.05$ ).

The level of awareness about seborrheic keratoses was significantly higher in group female SK compared to group male SK by a mean difference of 8.09 percentage points. The increase in level of awareness about seborrheic keratoses was found to be 74% higher in group female SK compared to group male SK. The same view was reported in a study by Del Rosso JQ10 (28-29).

## Primary Concern

With respect to the primary concern about seborrheic keratoses table (Table 10), it was evident that majority of the male seborrheic keratoses study subjects were not bothered (64.81%) and majority of female seborrheic keratoses study subjects too were not bothered (47.83%). Overall majority of seborrheic keratosis study subjects were not bothered too (57.00 %). When analyzed statistically using chi squared test, the difference in the primary concern levels about seborrheic keratosis between group male SK and group female SK was found to be statistically significant ( $p < 0.05$ ).

The level of primary concern about seborrheic keratosis especially about appearance was significantly higher in group female SK compared to group male SK by a mean difference of 14.73 percentage points (30). The increase in level of primary concern about seborrheic keratosis especially about appearance was found to be 40% higher in group female SK compared to group male SK as viewed in a study by Del Rosso JQ70.

## 4. CONCLUSION

In this study we can safely report that in patients undergoing evaluation of seborrheic keratoses at dermatology department of Sree Balaji Medical College and Hospital, on internal comparison the following significant conclusions were observed:

Incidence of seborrheic keratoses increases as age increases (High risk in  $> 50$  years). Incidence of seborrheic keratoses among males is more in older age group (High risk in  $> 50$  years) compared to females (High risk in  $< 50$  years). While females presented with chief complaints of seborrheic keratoses, males were more symptomatic. Males have significantly more facial presentation of seborrheic keratoses lesions than females. Females have significantly more face and neck presentation of seborrheic keratoses lesions than males. Females had higher level of awareness about seborrheic keratosis than males. Females were more concerned about the cosmetic appearance of seborrheic keratosis than males. Females had higher level of awareness about seborrheic keratosis treatment options than males. Females expressed more frequently that post ablation pain and discomfort were the reasons for resisting seborrheic keratosis removal compared to males. This study is a hypothesis proving study. Hence results have high clinical significance.

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**Ethical approval:** The study was approved by the Institutional Ethics Committee

## CONFLICT OF INTEREST

The authors declare no conflict of interest.

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