

**Research on Geriatric Dermatoses in Western India Tertiary Care Patients****Hemendra J Solanki<sup>1</sup>, Jaydipkumar Tank<sup>2</sup>**<sup>1</sup>Senior Resident, Dept of Skin & V.D, GMERS Medical College, Junagadh<sup>2</sup>Associate Professor, Dept of Skin & V.D., GMERS Medical College, Junagadh

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Conflict of interest: Nil

**Abstract:****Background & Rationale:** The improvement of the diagnosis and treatment of skin problems in senior individuals can have a substantial influence on their quality of life, which is why the research of geriatric dermatoses is vital.**Aim:** This study aims to explore the clinical characteristics and prevalence of geriatric dermatoses among patients undergoing treatment in Western India's tertiary care centers.**Hypothesis:** We hypothesize that geriatric dermatoses are common in patients visiting tertiary care centers in Western India and that their clinical features vary depending on the specific condition.**Materials & Methods:** This study used a cross-sectional design. The investigation included patients getting tertiary care who were 65 years of age or older. To participate in the trial, patients had to be 65 or older and admitted to the tertiary care hospital. Exclusion criteria for the trial included individuals with autoimmune skin illnesses, a history of skin malignancy, or incapacity to provide informed consent. Over the course of many weeks, one hundred patients, all of who were 65 and over, filled out the survey.**Results:** Of the 100 individuals assessed, 69% were men and 31% were women. The most commonly reported ailment (46%) was pruritus. With 89% of cases, xerosis was the most common physiological modification. Among the pathological alterations that were often observed were infections, eczema, and skin cancers.**Conclusion:** In conclusion, the study offers essential information on the frequency and trends of geriatric skin problems among patients receiving tertiary care in Western India. This highlights the necessity for more research as well as improved healthcare methods in order to cater to the specific requirements of this group.**Keywords:** Geriatric dermatoses; Elderly; Tertiary care; cutaneous manifestations; Western India; Socioeconomic status.

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**Introduction**

The global aging population demands a detailed assessment of prevalent skin disorders, particularly in areas experiencing demographic shifts such as Western India. The link between aging, changes in immune response, and changes in skin structure and function makes diagnosing and treating geriatric dermatoses difficult [1-3]. The occurrence and management of skin disorders in the elderly may also be greatly impacted by socioeconomic inequalities, chronic medical conditions, polypharmacy, and reduced mobility [3,4].

India is not an exception to the worldwide trend of a sizable section of the population getting older. People over 65 make up the geriatric population, and there isn't much research on dermatologic conditions that affect them [1-4]. The United Nations Population Fund projects that by 2050; the percentage of Indians aged 60 and over would have doubled from its current level, according to the India Ageing Report 2023. From 14.9 crore, or

10.5%, on July 1, 2022, to 34.7 crore, or 20.8%, is the predicted growth in this proportion. Few research has been conducted in India to examine the cutaneous symptoms in the aged [5], but several studies have been conducted in European and African nations [6-8].

A class of skin disorders known as geriatric dermatoses often affects the elderly, and as the population ages, so does the frequency of these ailments [2]. The improvement of the diagnosis and treatment of skin problems in senior individuals can have a substantial influence on their quality of life, which is why the research of geriatric dermatoses is vital. Some of the geriatric dermatoses that have been discovered in previous study [3-5,6-8] include age-related macular degeneration, basal cell carcinoma, and actinic keratoses. These studies also investigated the risk factors associated with these dermatoses as well as the therapies that are now accessible. Despite

recent research, there is still a lack of understanding regarding the occurrence of geriatric dermatoses as well as the clinical features of these conditions among patients who are receiving treatment at tertiary care facilities in Western India. The purpose of this research is to fill up this information gap by performing a clinical investigation on elderly dermatoses in Western Indian tertiary care patients. What is the clinical presentation and prevalence of geriatric dermatoses among patients attending Western Indian tertiary care centers? This study aims to explore the clinical characteristics and prevalence of geriatric dermatoses among patients undergoing treatment in Western India's tertiary care centers. We speculate that individuals attending tertiary care facilities in Western India frequently suffer from geriatric dermatoses, with the clinical characteristics of these conditions varying.

### Materials & Methods

This sort of research was a cross-sectional study. The investigation included patients getting tertiary care who were 65 years of age or older. To participate in the trial, patients had to be 65 or older and admitted to the tertiary care hospital. Exclusion criteria for the trial included individuals with autoimmune skin illnesses, a history of skin malignancy, or incapacity to provide informed consent. In order to gather information, the survey included one hundred patients who were at least 65 years old and were either admitted as inpatients or registered in the outpatient clinic at the GMERS Medical College, Department of Dermatology. A thorough medical history that included both past and present cutaneous problems was taken. Whatever the problems, a thorough general and systematic review was conducted. Following the completion of a comprehensive dermatological examination, all of the findings were recorded using a proforma that had been prepared in advance. Regular blood tests such hemoglobin; full blood count, urine analysis, and blood sugar assessment were performed when it was thought to be required. Following the protocol, we took skin biopsies, Tzanck stains, scrapings, and clips of the nails to find out whether any fungi were present. There was a categorization of age-related skin changes into normal and pathological categories. The outputs were examined after being compiled into a master chart. The outcomes were compared to inferences made from similar studies. The research was conducted in compliance with the Declaration of Helsinki and was authorized by the Institutional Review Board. Prior to the experiment, each participant provided signed permission after being fully informed.

**Statistical Analysis:** In order to conduct the statistical analysis, version 25 of SPSS was utilized.

### Results

A cohort of one hundred patients, sixty-nine percent of whom were male and thirty-one percent of who were female were investigated. The ratio of men to girls was 2.22 to 1. A maximum of sixty individuals who fell between the 65- and 70-year age ranges were categorized. The patients consisted of individuals who were 69 years old on average. There were 46 individuals who said that itching was the most prevalent individual problem they had. In 55% of the cases, a coexisting systemic disease was evident. Itching was the most common individual complaint, as reported by 46 patients. All patients showed physiological changes, the most common of them being xerosis. In 12 cases, papulosquamous diseases were noted. Five individuals had lichen planus, and seven had psoriasis. Of the total, 31 individuals had eczema on their bodies. There are many various kinds of eczema, but the one that affected the most people was called lichen simplex chronicus, and it affected 10 people individually. Gravitational eczema and seborrheic dermatitis were identified in five cases. Three individuals were impacted by a trigger for allergic and contact dermatitis. There were five patients with asteatosis eczema. Three patients had hand eczema, and one patient had atopic dermatitis. Thinner hair was the most common hair modification seen in ninety subjects. Out of the male patients, there were a total of 38 cases of hypertrichosis of the pinna and 18 cases of androgenic alopecia. There were six cases in which there was evidence of hirsutism. The frequency of nail modifications is higher than the number of cases caused by the fact that numerous instances had several nail modifications due to changes that occur with advancing age. There was observed darkening of the oral mucosa in twenty-four subjects.

### Discussion

Of the 100 individuals assessed, 69% were men and 31% were women. The most commonly reported ailment (46%) was pruritus. With 89% of cases, xerosis was the most common physiological modification. Among the pathological alterations that were often observed were infections, eczemas, and skin cancers. There were 100 participants in this research, ages ranging from 65 to 85. One patient was eighty-five years old. Thirteen of these patients were female, while sixty-nine was male. In line with most other research [9–11], the current study also discovered a higher proportion of men than girls.

Of all the symptoms seen in this investigation, 46 individuals complained of pruritus. According to the findings of a study [10], out of the 78.5% of patients who had pruritus, 3.8% fell into the category of senile pruritus, while the remaining

91.1% were affected by cutaneous dermatoses. All studies combined show a prevalence of pruritus ranging from 11.5% to 49.6% [9,11]. It is possible that the prickles were rendered worse by the co-occurrence of pre-existing illnesses and medications among the 55 patients who participated in this research. These conditions included diabetes mellitus, hypertension, chronic renal failure, ischemic heart disease, chronic obstructive lung disease, and others.

Making the distinction between problematic and normal characteristics on an aged person's skin is the most challenging aspect of skin examinations. The frequency and severity of most lesions and modifications fall within the normal range, with very few exceptions. This research identified physiological conditions as idiopathic guttate hypomelanosis, dermatoheliosis, xerosis, wrinkles, and atrophy (thinning of the skin). Among the 89 individuals in this investigation, xerosis was the most common physiological alteration found. A tiny fraction of people has xerosis, according to several studies. The range of these numbers was 7% [11] to 99.8% [12].

The high xerosis incidence in our research is comparable to very few previous studies [13, 14]. The increased prevalence of xerosis may be explained by the subjects' usage of harsher soaps and less emollients; the subjects are primarily from semi-rural settings. 78 of the individuals that were examined had wrinkles. The findings of our research, which reveal that 94%, 95.5%, 95.6%, and 99% of patients, respectively, had wrinkles, coincide with the findings of other studies that have been published [11–14].

According to the findings of the study, the majority of glyptic wrinkles develop on regions of the body that are exposed to the sun, such as the neck, face, forearms, and dorsa of the hands. Because people with ethnic colouring tend to have skin that is more resistant to the effects of sunlight, it is possible that this is one of the reasons why the study revealed a little lower incidence of wrinkles.

The causes that cause pathological skin changes in aged people include, but are not restricted to, keratinization disorders, benign tumors, pigmentary disorders, vascular disorders, infections and infestations, and other skin ailments. Seven individuals in this research had psoriasis. Psoriasis incidence has been reported in several researches to range from 1% to 11.2% [9–13].

The current investigation's findings on the prevalence of psoriasis are consistent with those of research conducted by [9] and [14]. This study's observations of five lichen planus patients are in line with those of a study [15]. Thirteen individuals with eczematous diseases were included in the current investigation. Numerous studies show that

the incidence of eczemas ranges from 11.9% [4] to 58% [8]. A positive link between the prevalence of lichen simplex chronicus (LSC) and contact dermatitis was found in research [10], which indicates that this correlation is good. The findings of an investigative study [13] are consistent with the findings of the trial on the incidence of stasis dermatitis. The frequency of seborrheic dermatitis coincides well with a small number of studies [16–18]. The noteworthy incidence of xerosis and pruritus in our patients may be the reason for the increased prevalence of stasis dermatitis and LSC.

## Conclusion

In conclusion, the study offers essential information on the frequency and trends of geriatric skin problems among patients receiving tertiary care in Western India. This highlights the necessity for more research as well as improved healthcare methods in order to cater to the specific requirements of this group. Because they have presumably undergone greater exposure, the elderly are more susceptible to a range of skin conditions that may be attributed to both the natural ageing process and environmental factors.

Subsequent research in this area might investigate the impact of cultural and socioeconomic variables on the development and treatment of geriatric dermatoses in Western India and create customized treatments to improve the health of this vulnerable group.

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