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SEBORRHEIC DERMATITIS *(HAZĀZ)* HERBAL REMEDIES AND THERAPEUTIC MODALITIES IN UNANI MEDICINE: A REVIEW"

Adnan Ali[1]*, Umat Jan[2], Mohd. Danish[2], Farhat Rashid[2]

[1]PG Scholar (M.D), Department of *Moalajāt*, Regional Research Institute of Unani Medicine, University of Kashmir, Naseembagh Campus, Srinagar, Jammu and Kashmir, India.

[2]PG Scholar (M.D), Department of *Moalajāt*, Regional Research Institute of Unani Medicine, University of Kashmir, Naseembagh Campus, Srinagar, Jammu and Kashmir, India.

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Corresponding Author: Adnan Ali

Address: PG Scholar (M.D), Department of *Moalajāt*, Regional Research Institute of Unani Medicine, University of Kashmir, Naseembagh Campus, Srinagar, Jammu and Kashmir, India.

ABSTRACT

Seborrhoeic dermatitis (SD) is a common skin disorder marked by erythematous patches with yellow-grey scales. It often affects the face, scalp, upper chest, and back. Seborrhoeic dermatitis of the scalp affects almost half of all adults. Despite its widespread prevalence, the reason has not been fully recognised. Numerous intrinsic and external environmental factors, such as excessive sebum production, fungal colonisation of the skin's surface, genetic predisposition, and dynamics, can all play a role in disease development. According to the Unani system of medicine, this sickness is caused by *Akhlāṭ-e-Radiyah* (morbid matter). *Hazāz/Abria,* also known as *Bafa*, is a chronic scalp condition characterised by the discharge of small scales. It is also attributed to *Balgham Māliḥ* (saline phelgm) or *Dam-i-Sawdāwī* (black bile in blood).

KEYWORDS: *Hazāz, Bafa,* Seborrheic Dermatitis, Dandruff, Unani medicine, Management

Abbreviations:- Seborrheic Dermatitis (SD), Aquired Immuno Deficiency Syndrome (AIDS),

INTRODUCTION

Seborrhoeic Dermatitis (SD) and dandruff are two prevalent dermatological conditions that affect the seborrhoeic parts of the body. They are considered the same underlying ailment since they share many characteristics and respond to comparable treatments, with the primary differences being geography and severity. Dandruff is limited to the scalp and causes itchy, flaky skin with no obvious inflammation. SD affects the scalp, face, retro-auricular region, and upper chest, producing peeling, scaling, irritation, and itching. It can also cause significant erythema. SD and dandruff flakes are typically white to yellowish and might be greasy or dry. It is believed that both SD and dandruff affect half of the adult population. Despite their widespread occurrence, their causes are poorly understood.The pathogenesis is influenced by a variety of intrinsic and external variables, including sebum secretions, fungal colonisation on the skin's surface, individual vulnerability, and their interactions. Genetic, biochemical, and animal model research contributed to a better understanding of the aetiology and treatments. In this detailed study, we summarise current information on SD and dandruff and aim to give recommendations for future management, investigations, and therapies in the Unani system of medicine.

Definition and overview of Seborrheic Dermatitis

Seborrhoeic dermatitis (SD) is a widespread, chronic, relapsing skin illness that affects the scalp, face (nasolabial folds, ears, and brows), and upper portion of the trunk. Some SD patients may also have inflammatory erythematous folliculitis (which might be caused by Malassezia) and blepharitis (1). Dandruff has been estimated to afflict 1-5% of the global population, according on the nation investigated. A research in India found that 13.4% of children under the age of five have seborrhoeic dermatitis, with the frequency peaking during infancy and slowly declining with maturity. Men are affected more commonly than women at all ages.

Up to 85% of individuals with HIV and AIDS have SD(2). Despite its widespread occurrence, the specific aetiology of this condition remains unknown. However, various elements (Malassezia yeasts, hormones, sebum levels, immunological response, neurogenic factors, and external factors) appear to be implicated in SD etiopathogenesis, although the specific pathogenetic pathway is still debated(3). The inherent integrity of the scalp stratum corneum is an important, sometimes overlooked component that may influence an individual's susceptibility to dandruff. The stratum corneum is the key protective barrier against

everlasting assaults (e.g., microorganisms, oxidative stressors, UV irradiation, and toxic chemicals), as well as the primary epidermal barrier to water loss, ensuring scalp health and integrity.In the dandruff scalp, the level of important stratum corneum barrier lipids is diminished, the relative ratios are changed, and structural organisation is impaired. These lipid alterations have an influence on barrier quality, as evidenced by the discovery that transepidermal wayer loss (TEWL) is higher in the dandruff scalp than in the healthy scalp. Furthermore, the dandruff scalp's defective barrier shows an underlying predisposition for hyperproliferation, altered corneocyte maturation processes, and a subclinical inflammatory state(4).Three types of seborrhoeic dermatitis have been identified: infantile seborrhoeic dermatitis (asymptomatic, starts as cradle cap at birth, and is self-limiting, Adult Seborrhoeic Dermatitis (Appears on several sites such as the face, trunk, and scalp as dandruff (pityriasis capitis), which is usually the earliest and only manifestation in most) and Seborrhoeic Dermatitis in HIV-infected patients (Most common manifestation, florid lesions with intense erythema and thick, greasy, yellow scales involving unusual sites, recurrent, severe, and often resistant to treatment).(5) The most important clinical hallmark of seborrhoeic dermatitis is the distribution of lesions, which appear in regions of the skin with a high concentration of sebaceous glands, particularly the scalp and face.

Seborrhoeic dermatitis is distinguished by folliculocentric salmon-colored papules and plaques with a fine white scale and a yellowish crust, which is commonly referred to as a greasy scale crust. It can occur in one or more sites, with less scaling on flexural surfaces and lesions with poorly defined edges.(6) Conventional medication decreases disease activity, although recurrences are normally expected after treatment is discontinued (5). In many individuals, topical corticosteroids and antifungal drugs are used as first-line treatments, however an adverse reaction to the ointment might exacerbate the lesion. Furthermore, the use of topical corticosteroids (including mid-potency and low-power drugs) for SD may be limited due to protracted treatment adverse effects and the common occurrence of early recurrence following termination.

However, due to the adverse effects of drugs, as well as the chronicity and recurrence of seborrhoeic dermatitis, other approaches such as Unani medicine can be used for therapeutic and preventative purposes. Unani medicine offers tremendous potential in treating a variety of scalp disorders. There are several topical and oral preparations available for both medical and cosmetic reasons. The primary advantage of employing Unani medicine in SD is that a

single substance may perform various pharmacological functions, such as antifungal, anti-inflammatory, scalp cleaning, and so on, all of which are beneficial to SD.(7)

Understanding Seborrheic Dermatitis in the Unani System

Hazāz/Abria refers to shedding scaly flakes from the scalp, which can harm both the hair and the skin. It can be caused by a disturbed mind *(Dimāgh ke Mizāj ka fasād),* the disposition of the hair itself, or the participation of the body, resulting in the production of morbid fluid *(Fasīd Ruṭūbat)* that spreads in the pores of the scalp, or by a disturbance of blood *(Tez Mādda),* which damages the skin.(8) According to Galen, *Hazāz* can appear in any area of the body, although it often occurs on the head and brows.(9) *Hazāz/Abria* is mostly caused by overall bodily weakness or anaemia.(10)

Types

According to *Sheikh, Bafa* is of two types

1. **Mild or dry variety or pityriasis sicca:** The flakes falling from head is fine, white or brown in color and dry. Hair becomes dry and loses its shine. It is accompanied by mild itching. Flakes usually falls on the shoulders by itself. This type usually occurs in winter or summer season.

2. **Severe or greasy variety or pityriasis steatoids:** in this type, the skin of the head and other parts become greasy and sticky with hair loss. Generally, this type is produced in the form of round spots in the whole scalp or in some parts of the scalp. In severe cases it occurs in the eyebrows, behind the ears, beard, axillary and pubic area. The skin of scalp becomes greasy, yellowish, shiny and slightly speckled scales fall off. There is associated mild itching. Sometimes in case of excessive inflammation and itching, the condition resembles eczema. At the end eventually the hair falls off, this condition is called Alopecia pityroides.(11)

Epidemiology (12,13,14,15)

The global prevalence of SD is around 5%, but the non-inflammatory variant, dandruff, is probably closer to 50%. SD affects all ethnic groups around the globe.SD prevalence is bimodal, with a peak in the first three months of infancy, followed by adrenarche and a second peak in the fourth decade. At three months, over 72% of Australian preschool children had SD, which then dropped to 10% overall. Furthermore, the Rotterdam Study's data analysis found that 14% of middle-aged and older adults had SD. However, 35% of people with early HIV infection acquire SD, and the rate climbs to 85% in people with AIDS.

Etiology

Despite its widespread occurrence, the specific aetiology of this condition remains unknown. However, various elements (Malassezia yeasts, hormones, sebum levels, immunological response, neurogenic factors, and external factors) appear to be involved in SD etiopathogenesis, although the specific pathogenetic pathway is still debated.(3)

1.Malassezia species: Growing data suggests that Malassezia spp. have a significant role in SD development. Malassezia spp. are lipophilic yeasts that live all over the skin. Seven of the eleven discovered species are related with human skin flora and SD. Malassezia spp. can cause an inflammatory reaction by releasing oleic and arachidonic acid from sebum lipids. Both of these unsaturated fatty acids have an irritant and desquamative impact on keratinocytes. Furthermore, cyclooxygenase metabolises arachidonic acid, which produces proinflammatory eicosanoids (especially prostaglandins), causing inflammation and stratum corneum damage. Keratinocytes in afflicted regions are stimulated to create proinflammatory cytokines, which amplify and sustain the inflammatory response.(16,17)

2. Hormones and skin lipids: Sebaceous gland dysfunction is not necessarily linked with excessive sebum production(6). However, 50 percent of patients have oily, sebum-rich skin. As previously stated, sebum lipids are necessary for Malassezia growth and the manufacture of early proinflammatory factors, therefore a certain amount of sebum is always required to establish favourable circumstances for SD development. SD lesions are thus mostly found in skin regions with a high concentration of sebaceous glands. SD is most commonly seen throughout puberty and adolescence, when sebum production is at its peak. There is also a putative hormonal link: not only does the condition arise during puberty, but SD is more prevalent in males than girls, indicating that androgens alter the pilosebaceous unit. (18)

3. Immune reaction: Because SD is an inflammatory disorder characterised primarily by the presence of Malassezia yeast, it is fair to believe that an incorrect immune response may contribute to the pathogenesis. Although the immunopathogenetic process underlying the development of SD is not fully known, multiple investigations have found immunological dysregulation in SD patients. The greatest evidence for immunodeficiency as an etiologic factor comes from studies that show SD prevalence is considerably greater among HIV positive and AIDS patients than in the general population. Furthermore, HIV-positive individuals have a more severe clinical manifestation of SD (sometimes affecting even the extremities)(19, 20).

4. Neurogenic factors: The frequent incidence of SD in Parkinson's disease patients has long been clinically noted, especially in those with protracted and severe seborrhoea, which creates favourable circumstances for Malassezia proliferation(21). Since bilateral seborrhoea occurs in individuals with unilateral parkinsonism, it appears that these variations in sebum level are caused endocrinologically rather than neurologically(22). Increased plasma α-melanocyte stimulating hormone (α-MSH) levels in Parkinson's disease patients are likely owing to a lack of MSH-inhibiting factor caused by inadequate dopaminergic neuronal activation. Furthermore, Parkinson's disease patients' facial rigidity (mask-like face) might lead to increased sebum deposition, leading to the risk of developing SD.(23)

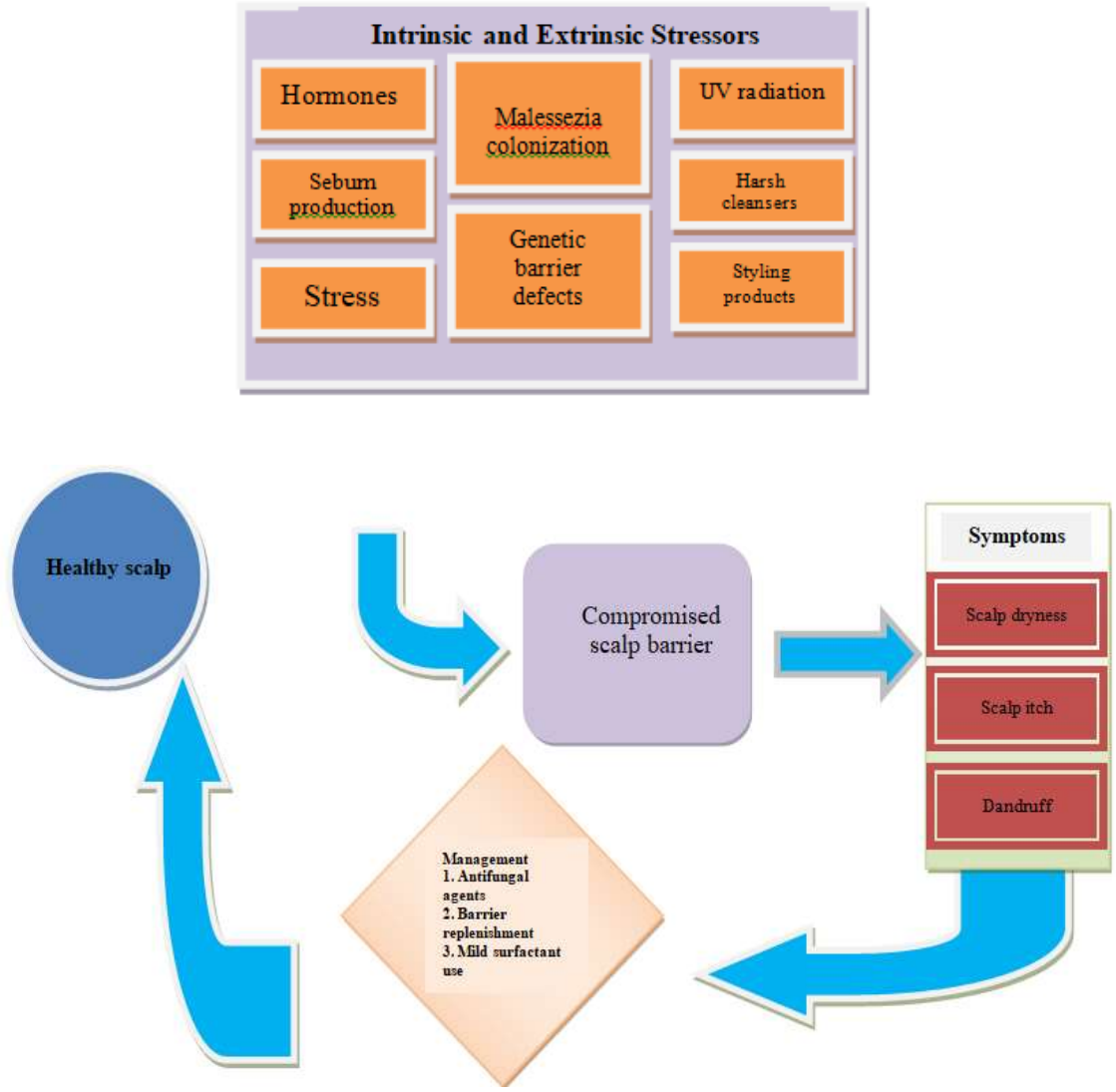

Figure 1: Model of barrier dysfunction in dandruff (4).

Pathophysiology

The history and physical examination are often used to make the diagnosis of SD. A skin biopsy may be necessary to make a differential diagnosis. SD's histological development can be divided into two parts. SD, like spongiosis and psoriasiform hyperplasia, features superficial perivascular and perifollicular inflammatory infiltrates in both the acute and subacute stages. These infiltrates are predominantly composed of lymphocytes and histiocytes, and they may be associated with parakeratosis around the follicular entrance, sometimes known as "shoulder parakeratosis." Neutrophils can also be seen in the scale crust around follicular ostia. In contrast, long-term lesions may show severe psoriasiform hyperplasia and parakeratosis, as well as surface plexus venule dilatation that mimics psoriasis.

Parakeratosis in psoriasis can cause thinning or loss of the granular layer due to fast keratinocyte growth. Dandruff has histological characteristics with SD, including epidermal hyperplasia, parakeratosis, and Malassezia yeasts surrounding parakeratotic cells. In contrast to SD, which has a significant concentration of inflammatory cells such as lymphocytes and NK cells, dandruff frequently has little or no neutrophil infiltration. These findings lend credence to the notion that dandruff and SD are stages of the same disease, with changing intensity and location.(24,25,26)

Risk Factors (6,27-45)

- SD often has a seasonal trend, with wintertime seeing an increase. SD usually improves with sun exposure (6).
- Those suffering from HIV/AIDS.
- Patients with immunosuppression are more likely to have SD.
- Pancreatitis caused by prolonged alcoholism.
- A variety of cancers
- Depression development of SD after receiving psoralen with UVA treatment.
- Beneficiaries of organ transplants.
- Genetic illnesses, such as cardiofibriocutaneous syndrome, Down syndrome, and Hailey
- Hailey disease, are ailments marked by anomalies in the body's genetic composition.
- Additionally, Parkinson's disease has a higher prevalence of SD.
- The hepatitis C virus.
- Individuals suffering from mental and neurological disorders

- Parkinson's disease is associated with elevated levels of α-melanocyte stimulating hormone and tardive dyskinesia.

Clinical Features

The characteristic appearance of SD lesions is erythematous areas with big, oily scales. Areas with a high concentration of sebaceous glands, such as the scalp, hairline, brow, glabella, nasolabial folds, ears, upper chest, back, axillae, umbilicus, and groins, are typically affected by the illness. Pruritus is commonly reported by patients, especially on the scalp and ear canals. A scaly erythematous border known as "corona seborrheica" may appear on the forehead as a result of scalp lesions spreading there. Common petaloid and uncommon pityriasiform are the two forms of SD on the chest (46). The petaloid variety starts as reddish-brown follicular and perifollicular papules that grow into patches that resemble medallions or lower petals.

Acute severe petaloid SD is probably what the pityriasiform kind is.Similar to pityriasis rosea, this variant features maculae and patches that follow skin lines. Ear canal dermatitis might occasionally be the only sign of SD. Another typical symptom of SD is blepharitis, which is characterised by honey-colored crusts on the rim of the eyelids. It might be difficult to diagnose this manifestation on its own. Seborrhoeic erythroderma, another name for generalised exfoliative erythroderma, is a severe form of this skin condition.(47)

Treatment Modalities in Unani Medicine

Unani Management: The Unani system of medicine provides complete management of many diseases through its various modes of treatment, such as

- *Ilaj bi'l Ghidha* (diet counseling)
- *Ilaj bi'l Tadbīr* (regular therapy)
- *Ilaj bi'l Dawa* (Pharmacotherapy)

Principle of Treatment

- Unani physician suggested following principle of *Iltihāb-i-Jild Huzāzī* (SD)(48,49)
- *Fasd* (venesection)(48,49)
- *Ishāl* (Purgation) of morbid matter. (48,49)
- *Musaffiyat-i-Dam* (blood purifier). (48,49)
- *Hijāma bi'l Shurt* (wet cupping) and local application. (48,49)
- Cleanliness of head, scalp, and hair.(50)

- Minimal use of styling or artificial hair care products.(50)
- Recommendation of healthy diet for overall development and maintenance of body skin and scalp.(50)
- Use of antibacterial or anti-fungal shampoo.(50)

Ilāj bi'l Ghidhā (Dietotherapy)

Unani physicians recommend easily digestible foods for *Ilāj bi'l Ghidhā* (diet therapy). Aside from that, the Unani System emphasizes dietary restrictions such as sweet and sour foods and meat.(51,52)

Ilāj Bi'l Tadbīr (Regimenal Therapy)

Ḍimād (Paste)

Powder of *Arad-i-Nakhūd* (flour of gram), *Arad-i-Bāqla* (flour of *Faba* bean) and *Arad-i-Hulba* (Fenugreek flour) should be taken in equal quantity and mixed with mucilage of Plantago to make a paste and apply locally over scalp and ask to wash after 10 minutes.(53) Another paste prepared by mixing *Ushna* (*Ushnea longissima*) with water applied topically in the same manner is also effective in the management of Dandruff.(54)

Table 1: Topical single *(mufrid)* Unani Drugs(55-64).

S.No	Unani Name	Scientific Name	Used Part/Form
1	***Amla***	*Emblica officinalis*	Fruit juice or oil
2	***Muqil***	*Commiphora muqil*	Oleogum resin
3	***Parsiyaoshan***	*Adiantus capillus-veneris*	Whole plant
4	***Injeer***	*Ficus carica*	Fruit
5	***Arad Tukhme Baqla***	*Vicia faba*	Seeds
6	***Murmuki***	*Commiphora myrrha*	Oleogum resin
7	***Post-i-Halela***	*Terminalia chebula*	Fruit coat
8	***Tukhm-i-Gajar***	*Daucus carota*	Seeds
9	***Tukhm-i-Hulba***	*Trigonella foenum graecum*	Seeds
10	***Chana***	*Cicer arietinum*	Seeds
11	***Baekh Kabar***	*Capparis spinosa*	Root bark
12	***Filfil Siyah***	*Piper nigrum*	Fruit
13	***Balela***	*Terminalia balerica*	Fruit
14	***Tukhm-i-Katan***	*Linum usitatissimum*	Seeds
15	***Irsa***	*Iris ensata*	Root
16	***Hing/Hilteet***	*Ferula foetida*	Dried latex (rhizome)
17	***Bhangrah Siyah***	*Eclipta prostrata*	Root or oil
18	***Samagh Arabi***	*Acacia arabica*	Gum
19	***Jufte Baloot***	*Quercus incana*	Outer covering
20	***Biranjasif***	*Achillea millefolium*	Seeds

***Ilāj bi'l Murakkabat* (Compound Unani formulations) (65-66)**

- *Kushta Fawlad* 30mg with *Jawarish Jalinūs* 7g in addition with *Shīra Bādyān* 7 g, *Shīra Mawīz Munaqqa* 9 Pieces, *Shīra Tukhm Kashūth* 5g should be given along with *Sharbat-i-Anar* 25ml.
- *Sayyal Fawlad* 5 drops with plain water after meals twice daily.
- *Ma al-Lahm* 50 ml with Sugar at bedtime.

Case Studies And Clinical Evidence

A clinical study conducted by Shah et al. investigated the management of *Huzaz/Abria* (dandruff) using a Unani pharmacopoeal preparation compared to a 2% ketoconazole lotion. Group A was treated with a Unani formulation comprising powders of *Cicer arietinum* (*Aard Nakhood*), *Vicia faba (Aard Baqla), Lupinus albus (Aard Turmas), Althaea officinalis* (*Aard Khatmie*), and *Trigonella foenum-graecum (L`uāb-e-Hulba),* combined with *Rogan-e-Bunafsha* (oil of *Viola odorata*), applied topically (Shah et al.). Similarly, Mushtaq and Zaman evaluated a polyherbal Unani shampoo for dandruff, formulated with equal quantities (10 g each) of *C. arietinum* (*Nakhood*), *V. faba* (*Baqila*), *L. albus* (*Turmus*), *A. officinalis (Khatmi),* and *T. foenum-graecum* (*Methi*), highlighting the effectiveness of traditional Unani ingredients in hair care applications (Mushtaq and Zaman).(67,68)

CONCLUSION

Seborrhoeic Dermatitis (SD) is a chronic skin disease that mostly affects seborrhoeic regions such as the scalp, face, and chest. It is characterised by erythematous patches with oily scales. Malassezia yeasts, immunological dysfunction, hormonal abnormalities, and neurogenic impacts are some of the variables linked to it. The incidence of SD peaks in infancy and age, and it frequently manifests as dandruff or more severe forms with inflammation, scaling, and itching. Traditional therapies, such as corticosteroids, provide short-term respite but increase the chance of recurrence. Unani medicine offers a safer, more comprehensive approach to therapy by emphasising holistic care through dietary recommendations, regimenal treatments, and topical herbal applications for anti-inflammatory, antifungal, and scalp-cleansing benefits.

Data Accessibility

This evaluation was constructed by combining all accessible paper, electronic, and digital resources. I looked for published articles, review papers, case studies, and research papers in

PubMed, Google Scholar, Science Direct, Scopus, and other sources. We also study extensive dermatological and cosmetology literature, both modern and Unani.

Conflict of Interest

Declare no conflict of interest

Source of Funding

None

Ethical Approval

Not applicable

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