AYURVEDIC MANAGEMENT OF ACNE IN IMMUNOCOMPROMISED PATIENT – A CASE STUDY

Abstract- *Mukhadushika*[(1)] or acne is a common skin ailment , particularly among adolescents ,but it can affect people of any age. There are certain drugs like systemic or topical steroids , antiepileptics , antidepressants , antitubercular, antiviral drugs which induce acne[(2)] .This study aimed to assess the efficacy of Ayurvedic treatments in managing *Mukhadushika* due to systemic stroids which are used for 3 yrs for gout treatment. . A 59-year-old male patient suffering from pimples, pain, and related discomfort visited podar Hospital. Despite prior allopathic treatment, no relief was observed. Ayurvedic assessments revealed *kaphsanchiti* and *dushti*,*medasanchiti ,vimarg gaman* of *vayu* due to *strotas avrodh* and *raktadushti*. The treatment protocol consisted of mild *shodhan,pachan,shaman* and *raktaprasadan* . The results showed improvement in the patient's symptoms, with the absence of papules and pustules , erythema and complete resolution of tenderness. The treatment approach, including the use of *Chandrakala ras ,gandhak rasayan* ,*Sukshma triphala ,kaishor guggulu , kumbhjatu vati, kwath of rakta pachak* and *rakta prasadak Dravya* along with *kukkutnakhi lepa,nimba vasa bilva patra swaras* proved effective without side effects.

Key words- acne,mukhdushika , tiryak dhamani , kshudra roga ,immunocompromised ,Hyperkeratinisation

INTRODUCTION

In Ayurveda, acne vulgaris can be correlated with *Mukhadushika* , described under *Kshudra Roga*. The condition is characterized by thorn-like eruptions on the face resulting primarily from *kaphsanchiti* and *dushti*,*medasanchiti ,vimarg gaman* of *vayu* due to *strotas avrodh* and *raktadushti*. Ayurvedic literature emphasizes both internal and external therapeutic approaches along with dietary and lifestyle modifications for its management.

Acne vulgaris is one of the most common chronic inflammatory disorders of the pilosebaceous unit . The pathology of acne involes increased sebum production ,follicular hyperkeratinisation ,colonisation by cutibacterium acnes and inflammation mediated by bacterial products .It is characterized by the development of comedones, papules, pustules, nodules, and, in severe cases, cysts and permanent scarring. Genetic predisposition, hormonal influences, dietary factors, psychological stress, environmental pollution, and certain medications have also been implicated in its development and exacerbation.

AIM –

This work aimed to study the effect of Ayurvedic treatment in the case of *Mukhadhushika* (Acne) developed due to immunocompression associated with diabetes mellitus ,prolonged systemic steroid use and dietary factors .

CASE REPORT-

A 59-year old male patient visited the *Kaychikitsa* opd of Podar Hospital , with the following complaints; pimples on face and chest with itching ,burning sensation ,erythema and tenderness at pimples.

Past history -

K/C/O -DM (SINCE 4 Yr)

N/K/C/O – HTN/PTB/BA

H/O – Cerebral venous thrombosis (1 yr ago)

H/O – Addiction –

Alcohol (whisky)– 1 quarter /day since 20 yrs

Cigarrate smoking- 4-5 cigar/day

S/H/O- Hernioraphy (15 yrs ago)

b/L cataract surgery

Family History –

Father – DM

Mother- not significant

D/H/O -

Tb. Glycomet 1-0-1 (since 4 yr)

Tb. Wysolone 10 mg 1-0-0 (since 3 yrs)

Tb. Rivoroxaban 20 mg 1-0-0 (10 months)

General Examination –

General condition	Fair
Blood pressure	130/80 mmhg
Pulse rate	90/min
Respiratory rate	22/min
Tempreture	97 f
Built	Medium

Respiratory system	Air entry bilaterally equal
Cardiovascular system	S1 S2 Normal no added sounds

Central nervous syStem	Conscious and oriented

Ashtavidh pariksha –

Nadi- Pittavatpradhan

Mal- Grathit

Mutra- Prakrut

Jivha – Ishat sam

Shabd - Prakrut

Sparsh – Ushna

Druk- - Prakrut

Akruti – krush

Local Examination of papule and pustule -

Dryness (-)

Secretions (-)

Crust (-)

Local tenderness (+)

Number -Numerous

Size- variation in size

Shape – circular

Surface – oily

Contour – conical /dome shaped

Colour – dull red / blackish

Criteria of assessment –

Sr.no	Symptoms	Grade 0	Grade 1	Grade 2	Grade 3	Grade 4
1.	Discolouration	Normal coluration	Near to normal which looks like normal to distant observer	Reddish discolouration	Slight reddish black discolouration	Blackish discolouration
2.	Itching	No itching	Ocassionally feel itching	Mild itching (less than 5 times a day)	Moderate (itching more than 5 times a	Severe itching (continuous during day

					day)	
3.	Local tenderness	No tenderness on palpation	Mild (Patient reports pain/tenderness only when asked; no facial expression or withdrawal.	Mod (Patient spontaneously complains of pain with palpation and shows facial grimacing).	Severe (Patient winces markedly and withdraws the affected part on palpation).	Very severe (Patient does not allow palpation because of extreme pain; even light touch may cause marked discomfort.
4.	Burning Sensation	No burning sensation	Mild (ocassional burning)	Mod(intermittent Burning)	Severe (frequency Burning affecting comfort)	Very severe (continuous burning affecting daily activities)

HETU-

Kaph dushtikar hetu-	***Rakta Dushtikar hetu-***
1.milk products (like curd) 2.Viruddha ahar(like cold coffee) 3.Diwaswap	*1.Virudha ahar* (like milk shakes , tea + chapati)(*vidgdh,amla,lavan*) 2.Fermented food (like Idli, dosa **,**meduvada) *(ushna , amla ,lavan*) 3.spicy food *(ushna ,Tikshna)* 4.*madya sevan*(alcohol) (*Tikshna,ushna,vidahi,* *Amlapaki*) 5. *Atap sevana (ushna)* 6. *krodh (pitta,rakta prakop)*

	7. *ratri jagran* *8. Diwaswap*

Samprapti –

Modern described anatomy and physiology of pilosebaceous unit ,which states that it consist of hair follicle ,sebaceous gland,arrector pili muscle and hair shaft.Sebaceous gland secretes sebum which is composed of triglycerides ,cholesterol esters,free fatty acids . sebum lubricates skin ,prevents excessive water loss and maintain skin barrier . They are most abundant on face,chest,upper back and shoulders .This is correlate with the tiryank dhamani described by acharya Sushrut .

तिर्यग्गानां तु चतसृणां धमनीनामेकैका शतधा सहस्रधा चोत्तरोत्तरं विभज्यन्ते, तास्त्व–सङ्गचेयाः, ताभिरिदं शरीरं गवाक्षितं विबद्धमाततं च, तासां मुखानि रोमकूपप्रतिबद्धानि यैः स्वेदमभिवहन्ति रसं चाभितर्पयन्त्यन्तर्बहिश्च, तैरेव चाभ्यङ्गपरिषेकावगाहालेपनवीर्याण्यन्तः शरीर–मभिप्रतिपद्यन्ते त्वचि विपक्वानि, तैरेव च स्पर्श सुखमसुखं वा गृह्णीते । तास्त्वेताश्चतस्रो धमन्यः सर्वाङ्गगताः सविभागा व्याख्याताः ||सु. शा.९/९[3]

The openings of *tiryank dhamani* is bounded by *romkoop* i.e,hair follicle . They regulate sweating and give nutrition to the inner and outer layers of the skin .They are responsible for the absorbtion of locally applied drugs.

Keratinocytes lining follicle normally desqamate and exit through the follicular opening .In this patient there is increased follicular keratinasation due to prolonged use of systemic steroids i.e,wysolone[4] .Resultant formation of keratotic plug at follicular ostia leads to obstruction to flow of sebum and there is dilation of follicle.here, non inflammatory papule is formed.

In Sushrut Samhita[5] and Madhav Nidan[6] they stated that kaph is imp factor in pathology of mukhdushika.

शाल्मलीकण्टकप्रख्याः कफमारुतशोणितैः।जायन्ते यूनां वक्त्रे पिडका मुखदूषिकाः|| सु. नि. 23/40

शाल्मलीकण्टकप्रख्याः कफमारुतरक्तजाः|युवान यूनां पिडका विज्ञेया या मुखदूषिकाः ।। मा.नि. 55/33

.Due to *picchil,Guru ,snigh,sheet gunatmak ahar kaph* become *styan*(viscous),*guru* and *manda* therefore obstructs the *strotas* by adhering to their walls . so,kaph and meda get accumulated in the *strotas* which leads to formation of *granthi* .

Vagbhat describe this as they are *medogarbha* means they containing *meda* inside them .

शाल्मलीकण्टकाकाराः पिटिकाः सरुजो घनाः। मेदोगर्भा मुखे यूनां ताभ्यां च मुखदूषिकाः|| अ. संग्रह . उ. 36/7

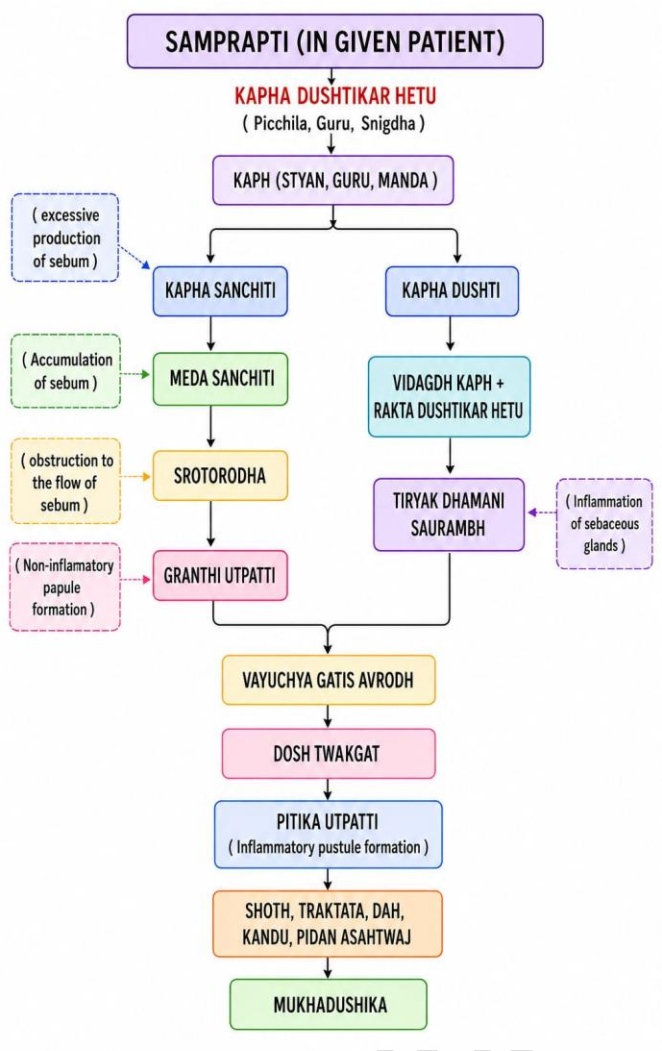
That follicular obstruction with excess sebum production lead internal rupture of follicular wall .This brings dermis into contact with several proteases and lipases leading to acute inflammation .Then bacteria break down fatty acids in the sebum to short chain fatty acids that initiate inflammation .this causes neutrophilic inflammation which results in pus formation in acne .

Due to prologed use of steroids and patient is diabetic ,so he was prone for bacterial proliferation . Due to bacterial activity and enzymes non inflammatory papules are converted to inflammatory pus filled pustules.

Due to abnormal accumulation of *kaph,meda* in *tiryak dhamani*.kaph become *vidgdh* and *lavan rasatmak* which reults in *pitta -rakta dushti* and causes in *saurambh* of *tiryak dhamani* and *pitika*. Here,*rakta dushti* due to raktadushtikar ahar vihar was also seen. The pitika became swelland erythematous.

And due to this *saurambh* and accumulation of *kaph* and *meda* ,there is obstruction to normal *gati* of *vayu* . so,there is *vimarg gaman of vayu* .

Therefore,erythema(*araktata*),swelling(*shoth*),burning sensation(*dah*) ,itching (*kandu*) and tenderness (*pidan asahtva*) is seen at *pitika* site .



Sr.No	Name of Drugs	Dose of drug	kala	Frequency	Duration
1.	Sukshma triphala Chandrakala Ras Gandhak Rasayan	Each 500mg	After food	Twice a day	For 15 days
2.	Kwath of sariva,patola,Musta, patha,kutaki,guduchi,manjishtha,Daruharidra,raktachandan	30ml	Morning-Evening	Twice a day	

Tikshna Anuloman with Aragwadh kapila vati(5) and 50 ml castor oil .

Sr.No	Name of Drugs	Dose of drug	kala	Frequency	Duration
1.	Kwath of sariva,patola ,Musta, patha,kutaki,guduchi ,manjishtha Daruharidra,raktachandan	30ml	Morning- Evening	Twice a day	For 15 days
2	Sukshma triphala Chandrakala Ras Kaishor guggulu	Each 500 mg	After food	Twice a day	
3.	Kumbhajatu vati	500 mg	After food	Twice a day	

Local application –

Sr.no	Dravya	Frequency	Kala	Duration
1	Kukkutnakhi churna lepa	Once a day	Afternoon	15 min
	Vasa,nimba,bilva swaras	Once a day	Morning	

Discussion-

We studied the samprapti of Acne and *mukhdushika* in that patient . In *Mukhdushika* Ayurvedic assesments show that there *kaphsanchiti* and *dushti*,*medasanchiti* ,*vimarg gaman* of *vayu* due to *strotas avrodh* and *raktadushti* is there. so treatment should be kaph-medopachak or shoshak. But Here the symptoms produced due to *Raktadushti*, are predominant. And patients *prakruti* is *Pitta vat pradhan*. so the use of *katu, ushna, tikshna* drug was avoided.

Instead of this we plan *raktadushtihar* and *saurambhnashak chiktsa* first. For that we used *Tikta, madhur, kashay (mild) rasatmak dravya* .for *mild shodhan* and *Pachan* . We used Sukshma *tiphala, chandrakala Ras, Gandhak Rasayan,aragvadh kapila vati* and *kwath.*

As Patient Had Itching, Buming and tenderness at *pitika* which indicates dominance of *Rakta dushti*. so, we used *Gandhak Rasayan* as it described as *Pittashamek Dahshamak*, *Jantughna* (Antibacterial). Because it contains the drugs- mainly *gandhak*, then *chaturjat, Guduchi*, *Bhrungaraj. Gandhak* contains sulphur which shows antibacterial activity against acne associated Bacteria which reduces inflammation.

Sukshma triphala contains *Amalaki, Bibhituki* and *Haritaki* .These drugs are *Laghu, Ruksha*. It acted as *kaph-medopachak*. and clears *strotas* by dosha- *shodhan*. As Amlaki contains vitamin c which is an antitoxidant, it prevents sebum from oxidising which prevents obstruction to flow of sebum. it is anti-inflammatory and also prevents post inflammatory Hyperpigmentation.

chandrakala Ras- contains *Abhrak Bhasma, Dadimba, Guduchi satra, chandan, sariva, Manuka* which had *pittashamak, , Dahshamak* and *Rakta prasadak* et properties.These properties reduced Burning and erythema of Acne.

Kwath of *patol, musta, sariva, patha Manjisita, daruharidra ,raktachandan, Guduchi* is

Tikta rasatmak. They are *kaph- medopachak, Rakta pachak & shamak, strotoshodhak*.

Aragvadh kapila vati -We used this vati with castor oil capsule for *rakta ,pitta kapha virechan* .we avoid lepa procedure ,as patient had local tenderness. because of lepa skin may get irritated and symptoms may increase.

We Gave above treatment fer is days, the patient got40-50% Relief in itching, Burning sensation, erythema, Swelling and local tendeness.

As Papule-Pustules are numerous , we gave tikshna anuloman with 5 *Aragvadh kapila vati* and castor oil 50ml) on empty stomach early in the morning . He had 7 loose stool of Moderate quantity.

After Anuloman we stopped *Gandhak Rasayan* and add *kumbhJatu vati* and *kaishor guggulu* , with remaining drugs continued .

Kumbhjatu vati- contain *kumbhi, shilajit. kumbhi is kashay*. Laghu-Ruksha and *shilajit* is katu- *rikta, Lagh Ruksha-ushna*. They acted as *shrotoshodhak* by *kaph-medo Shoshan*.

kaishor guggulu - it mainly contains *guduchi & guggulu. Gudachi* is *tikta rasatmak* and Rakta pitta *shamak. Guggula* reduces inflammation and swelling. *Guggula* is *Medoghna* and its Lekhan properties and obstruction is cleared. This helped in reducing erythema, itching swelling and numbers of pustule and papule reduced.

Along with this oral medication ,we applied *kukkutnakhi choorna lepa* for 15 min in the afternoon . *kukkutnakhi* is *kashay ,laghu,rukshna* which helped for *sthanik pachan* of kaph *meda* and *rakta.*

Nimba ,vasa and bilva swaras is also applied in the morning .These drugs are *tikta,kashay ,laghu-ruksha* . they are *raktapachak* and *kaph ,medo shoshak* . they reduced tenderness erythema in *pitika. Nimba* had antibacterial effect on cutibacterium acnes.

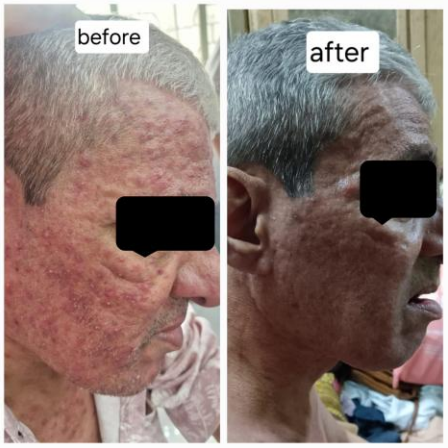
RESULTS-

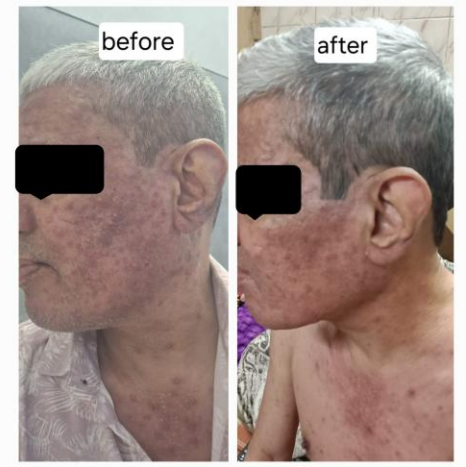
Post complaints were compared and results assessed showing signicant improvement

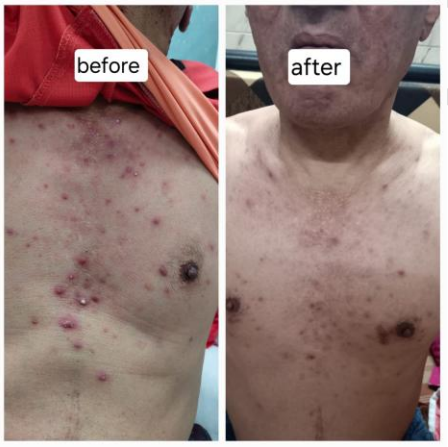
Sr.no	**Symptom**	**Before treatment**	**After treatment**

1.	Discolouration	3	1
2.	Itching	3	0
3.	Local tenderness	4	0
4.	Burning sensation	2	0

Sr.No	**Local examination of papules-pustules**	**Before treatment**	**After treatment**
1.	Dryness	Absent	All the Papules and pustues resolved. There is mild post inflame-matory hyperpi gmenta tion.
2	Secretions	Absent	
3	Crust	Absent	
4	Local tenderness	Presnt	
5	Number	Numerous	
6	Size	Variation in size	
7	Shape	Circular	
8	Surface	Oily	
9	Contour	Conical /dome shaped	
10	Colour	Dull red /blackish	







CONCLUSION-

So, from the above discussion it can be concluded that Ayurveda has better approach to treat Acne . A significant relief could be offered in symptoms of acne with the use of Ayurvedic drugs. In this case patient got relief from itching, burning sensation ,local tenderness and erythema . there is remarkable reduction in number ,size and colour of acne. Look of Face changed drastically. Thus, we can say that patient got relief symptomatically . This approach is safe, cost effective and have no adverse effects. It is simply adaptable in regular practice.

Refrences-

1sushrut Samhita – edited by acharya priyvat sharma-Su.ni.13/40 -page no -559

2.book of Medicine by Mathew-Agarwal – Acne vulgaris – page no 290.

3. sushrut Samhita – edited by acharya priyvat sharma-Su.sha.9/9-page no

4.ABC of dermatology – Rachel morris -jones – Acne- page no 91.

5. sushrut Samhita- edited by acharya priyvat sharma-Su.ni.13/40 page no -559

6.Madhav Nidan- edited by Dr.Brahmanand Tripathi -Madhan Nidan 55/33-page no -276

7.Ashtang sangrah -edited by Dr.shivprsad sharma -with sashilekha Sanskrit commentory -A.Sangrah -uttartantra 36/7-page no 813

8. Ashtang sangrah -edited by Dr.shivprsad sharma -with sashilekha Sanskrit commentory -A.Sangrah -uttartantra 36/7 indu tika page no 813