

ROLE OF AGADA IN DRUG DEPENDENCY - A ARTICLE REVIEW

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ABSTRACT

A person gets dependent on medicines due to diseases and consume it every day, then it is called as Drug Dependency. It is of two types- Psychological and physical. Psychological drug dependency arises mentally and in physical the amount of drugs increases continuously and adverse effects arise in the body. Drug dependency describes hypertension, diabetes and chronic RA diseases in which amlodipine is used extensively in hypertension. Vatsanabh and Sarpagandha are used in the form of Agada. In diabetes, metformin is used according to modernity and the use of Bhallatak in the form of Agad is beneficial. The use of steroid in RA has been going on for a long time which has a very harmful effect on the body. According to Ayurveda, Chitraka, Ereng, Vatsanabh and dushivishari agad are used in Rheumatoid arthritis which are very helpful in digestion, due to which the digestion of ama cures the disease completely. According to Ayurvedic literature hypertension, diabetes and chronic Rheumatoid arthritis considered to be Yapya vyadhis. Thus, Yapya vyadhi can be cured by the use of these yogas. And there will be no toxic effects on the body.

KEYWORD: Hypertension, Diabetes, Rheumatoid arthritis, Vatsanabh, Bhallataka etc.

INTRODUCTION

Drug dependence commonly called as 'Drug Addiction', is a compulsive need to use drugs in order to function normally. It occurs when a person stops using a drug and their body experiences withdrawal. Prescription medications used every day over time can also lead to dependence.

It's possible to be dependent on drugs without being addicted. Dependence can be a bodily response to a substance. This often occurs if the patient relies on medications to control a chronic medical condition. These conditions may include:

- High blood pressure
- Diabetes
- Auto immune disease
- Chronic Rheumatoid arthritis
- Bronchial asthma etc.

1. High blood pressure

(a) Amlodipine drug used in Hypertension

Within any population, blood pressure values occur within a continuum, and are determined by mechanical, hormonal and environmental factors. Any definition of hypertension therefore utilizes arbitrary threshold values within this continuum. Systemic BP rises with age, and the incidence of cardiovascular disease (particularly stroke and coronary artery disease) is closely related to

average BP at all ages, even when BP readings are within the so-called 'normal range'.^[1]

Amlodipine is considered a peripheral arterial vasodilator that exerts its action directly on vascular smooth muscle to lead to a reduction in peripheral vascular resistance, causing a decrease in blood pressure. It is a dihydropyridine calcium antagonist that inhibits influx of calcium ions into both vascular smooth muscle and cardiac muscle and results in reduced blood pressure.^[2]

ACE inhibitors (e.g., Enalapril 20 mg daily, Ramipril 5-10 mg daily or Lisinopril 10-40 mg daily) inhibit the conversion of angiotensin I to angiotensin II and are usually well tolerated. They should be used with particular care in patient with impaired renal function or renal artery stenosis because they can reduce the filtration pressure in the glomeruli and precipitate renal failure.^[3]

Adverse drug reaction

Amlodipine: Its side effect includes flushing, palpitation and fluid retention.^[4] An overdose of amlodipine could result in a high degree of peripheral vasodilatation with a possibility of reflex tachycardia. Significant and prolonged hypotension leading to shock and fatal

outcomes have been reported. Carcinogenesis, mutagenesis, impairment of fertility.^[5]

Adverse drug reactions of ACE inhibitors include first dose hypotension, cough, rash, hyperkalemia and renal dysfunction.^[6]

Ayurvedic view of Hypertension

The *prakopa* of *koshthaashrit vayu* is through *ruksha*, *kashaya*, *katu* and *tikta rasa* containing *ahara* and it is derived as *Udavarta roga*. In this, due to the *prakopa* of *apana vayu*, the channels carrying *mutra*, *rakta*, *kapha*, *meda* got the *pratiloma gati* and *rakta gata vata janya* and *vata prakopajanya* different diseases arise. Due to which, there is *aruchi* and severe pain the *hridaya* and *vasti* region. After this, the passage of *mutra* and *mala* becomes difficult.^[7] The *vayu* having *pratiloma gati* in *Udavarta* is treated by *Anulomana chikitsa*.^[8]

Sarpagandha or Vatsanabha agada drugs are commonly used in hypertension but should be avoided before treating the udavarta

(a) Sarpagandha (*Rauvolfia serpentina*)

Ayurvedic pharmacodynamics – *Rasa-Tikta*, *Guna* – *Ruksha*, *Virya-Ushna*, *Vipak* – *Katu*, *Doshkarma* *Kaphavatshamak*.^[9]

According to Acharya *Sushruta*, *Sarpandha* is included in *Ekasar Gana* which is useful against *visha*. It is *kapha* and *medanashak* due to its *kaphavatashamak guna*.

Reserpine is an effective antihypertensive major alkaloid of Sarpagandha.^[10]

(b) Vatsanabha (*Aconitum ferox*)

According to *Rasa tarangini*, *Vatsanabha* has been grouped under *mahavisha varga*.^[11] It is *Madhur* in *rasa* and *ruksha*, *tikshna*, *laghu*, *vyavayi*, *vikasi* in *guna*. It has *deepana*, *pachana* and *shoolaprashmana* properties and they play a major role in the treatment of *udavarta*.^[12]

2. Rheumatoid Arthritis

Rheumatoid arthritis (RA) is a chronic inflammatory disease that makes the small joints of the hands and feet painful, swollen, and stiff. It's a progressive disease that has no cure yet. Without treatment, RA can lead to joint destruction and disability.

Treatment plans usually include antirheumatic drugs (DMARDs) combined with nonsteroidal anti-inflammatory drugs and low dose steroids.

Common types of steroids used for RA include:

- Prednisone
- Hydrocortisone
- Prednisolone
- Dexamethasone
- Methylprednisolone
- Triamcinolone
- Dexamethasone

- Betamethasone

Side effects from steroid use in RA treatment include

- Weight gain
- Rounded face, also known as moon face
- High blood pressure
- Mood disruption, including depression and anxiety
- Insomnia

Adverse effects are related to dose, duration of therapy and pre-existing conditions that might be worsened by corticosteroid therapy, such as diabetes mellitus or osteoporosis. Osteoporosis is a particularly important problem because, for a given bone mineral density, the fracture risk is greater in glucocorticoid-treated patients than in post-menopausal osteoporosis.

The anti-inflammatory effects of glucocorticoids may mask signs of disease. For example, perforation of a viscus may be masked and the patient may show no febrile response to an infection.^[13]

Rheumatoid Arthritis as per Ayurvedic View

Mandagni is caused by intake of *Virudhh aahar-vihar* and *snigdha aahar* and results in the formation of *ama*. Due to which, *ama* is produced due to the *prakopa* of *vayu* and goes towards the main region of *kapha*, *amashaya*, *sandhi*, *shir* and *kantha* region. And by *prasarana* through the arteries, produces *kleda* in the channels of whole body. *Vata* and *ama* got the *vitiates* together and enter into *koshtha*, *trika pradesh* and *sandhi pradesh* and stiff the whole body. This is called *Aamvata*.^[14]

Langhan, swedana and deepana chikitsa through tikta and katu aahar, snehapaan, vasti and virechan are the treatment procedures given in Aamvata.^[15]

According to *Sushrut samhita* *Chitraka* and *Eranda* are grouped under *vishghana dravya*. They are useful in the treatment of *aamvata*.^[16]

(a) Chitrak

It is *katu* in *rasa* and *laghu*, *ruksha*, *tikshna* in *guna*.^[17] It is a *deepana dravya* due to its *ras* and *guna* which is helpful in the digestion of *ama*. It is *deepan*, *pachaka* due to which it also works as *shothahara* and *vednashamaka dravya*.^[18]

(b) Eranda

It is *Madhur* in *rasa* and *snigdha*, *tikshna* and *sukshma* in *guna*. And it is *rechak* due to its *prabhava*. Due to which it is *vibandhhara* and *shoolahara* and does *shodhana* of *vitiates dosha*.^[19]

3. Diabetes mellitus

As per WHO, diabetes mellitus (DM) is defined as heterogeneous metabolic disorder characterized by common feature of chronic hyperglycemia with disturbance of carbohydrate, fat and protein metabolism.

It is also important to understand another related term, metabolic syndrome, consisting of a combination of metabolic abnormalities which increase the risk to develop diabetes mellitus and cardiovascular disease. Major features of metabolic syndrome are central obesity, hypertriglyceridemia, low LDL cholesterol, hyperglycemia and hypertension.^[20]

Sulphonylureas are an effective therapy for lowering blood glucose and are often used as an add-on to metformin, if glycaemia is inadequately controlled on metformin alone. The main adverse effects of sulphonylureas are weight gain and hypoglycemia.^[21]

Diabetes as per Ayurvedic view

According to Ras tarangini, *Bhallataka* has been mentioned under *Upvisha* group.^[22] It is *madhur in rasa, katu, tikta, kashaya in guna and madhur in vipak*.^[23] According to Acharya Charak, it has been explained in *Shatvirechanshatahritiya adhyaya* under *Kushthaghana* and *Mutrasamgrahaniya gana*.^[24] Acharya Sushruta has been mentioned it in *Nyagrodhadi* and *Mustadi gana*.^[25]

In Rasayana Adhyaya of Charak Chikitsa Sthana, 11 yogas of *Bhallataka* like *Bhallataka taila, ghrit, yush* etc.^[26] have been described and in the analogy made by Acharya, it has been described as *Kaphashamaka*.^[27] According to Acharya Charak, *Trikantakadya sneha* and *Bhallatakasava* have been described in *Prameha Chikitsa* which is said to be very effective in *Prameha*.^[28]

DISCUSSION

The use of agada yogas in drug dependency are effective. *Bhallataka* is *kaphashamaka* due to its ushna virya. *Chitrak* and *Sarpagandha* both are *Kaphavatahamaka* due to their ushana, tikshna guna and ushna virya respectively. Therefore, they are given in the treatment of *kaphaj prameh, aamvata and raktagat vata* respectively.

CONCLUSION

According to Ayurvedic literature, use of *agada* can be done after *Shodhan* of *visha* and *upvisha* dravya in drug dependency. *Agada* work by their *guna* and *virya* which is helpful in *samprapti vighattan* of different rogas due to which *Yapya roga* can be cured. Ayurveda need to work more by use of *Agada* to bring the different rogas in their *samyavastha*. So much research has to be done through which many *Yapya rogas* in the society can be easily cured and we can avoid the side effect of modern medicines.

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