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YASADA BHASMA : AN EFFECTIVE HYPOGLYCAEMIC DRUG

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ABSTRACT: The bioevaluation of yasada bhasma was carried out on experimental animals and was found to be a very effective hypoglycaemic drug.

Yasada is a Sanskrit word and has been derived from the Persian word 'Jasta". In some of the ancient Ayurvedic literatures it has been mentioned under the name "KHARPARA' and 'RASAKA'. Yasada was include for the first time in 14th century in 'Madanpal Nighantu' and then in 16th century it was dealt independently in two Ayurvedic texts 'Ayurveda Prakash' and 'Bhavaprakash'. But no description on Yasada is found in literatures prior to 14th century.[1]

Yasada has been an essential component of several important Ayurvedic preparations, some of the popular preparations which contain yasada along with their uses are given below.

NAME	USE
Pramehari vati	Prameha
Mahakanaka Sindoor	Tuberculosis
Vrihatsomnath ras	Antidiuretic
Ratna prabha vati	Fever

Yasada has been widely used in the treatment of several diseases like conjuctivitis, spermatorrhoea, Gonorrhoea, Jaundice, wound healing diabetes and several other disorders[2]. Various synonyms have been given for yasada like jasta, Zinc, Kharparaja, Ritihetu, Netrarogari etc.

It has been reported that diabetic subjects are deficient in blood Zinc level compared to non-diabetic subjects.[3] Okamoto is 1943 showed that presence of Zinc in alpha and beta cells of Islet of langerhans.

Maske etal in 1952 observed the diabetic condition after administration of dithizone (a Zinc has chelating agent)[4]

Also Zinc has been found to be an integral part of the insulin crystals of the beta granules and it plays a important role in the physical stability of insulin.[5]

EXPERIMENT

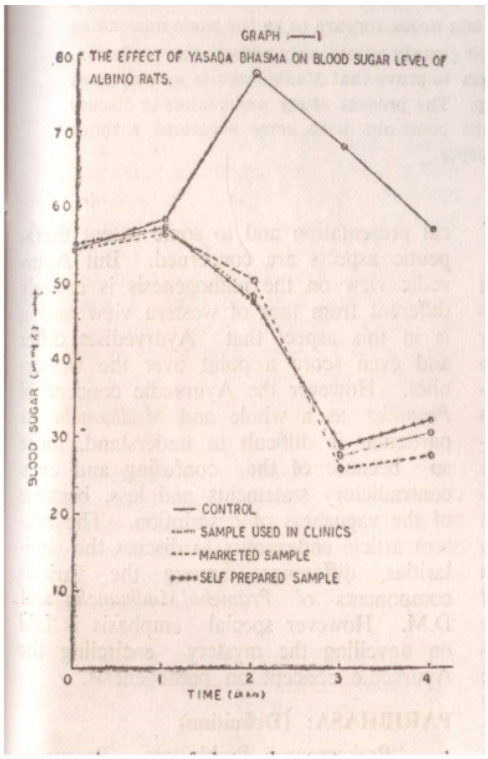
The healthy male albino rats having the body weight between the range 100-150 gms, were taken and separated into four groups of six in each. Animals were kept on

fasting for 18 hours before the starting of the experiment. The normal blood glucose level was determined. Then 0.5 gm of glucose in form of aqueous solution was fed to each animal of control group to produce hyper-glycaemic condition was fed to each animal of control group to produce hyper-glycaemic condition 3.3mg of yasada Bhasma samples (Marketed sample, sample used in clinics and self prepared sample) in form of aqeous

TABLE

Comparative blood sugar level in mg% (mean) in group of six Albino rats with respect to control and after administration of drug.

Groups	Blood sugar level in mg% at the end of				
	1hr	2hr	3hr	4hr	Initial
Control (Hyperglycaemic)	58.33	77.60	68.23	57.31	54.17
Test A (Marketed Sample)	56.77	50.52	26.04	27.60	54.17
Test B (Sample used in clinics)	57.29	48.44	27.60	30.73	54.17
Test C (Self prepared sample)	57.29	47.92	28.64	32.29	55.21



Suspension was fed to the test group animals along with 0.5 gm of glucose in form of aqeous solution. Now blood samples were withdrawn after every one hour, for four hours (1,2,3&4hrs).

These blood samples were analysed for the blood glucose by spectrophotometric method.[6] The observations are shown in table 1 and graph 1. The graph sows that the yasada Bhasma samples have significant hypoglycaemic action.

Therefore this work has confirmed the hypoglycaemic activity o yasada Bhasma as well as it provides the basis behind the us of yasada Bhasma in the treatment of yasada Bhasma in the treatment of Madhumeha (Diabetes mellitus).

REFERENCES

1. Sharma, P.V: Ayurveda ka vaijinanika itihas (scientific History

of Ayurveda), Chaukhamba Orienalia, Varanasi, p. 456 (1975)
2. Thakur, S.N Srinivas, C; Deshpande, P.J: Ancient science of life, 4,p. 240 (1986)
3. Sircar, A.R. et al: Indian Drugs, 23 P. 248-252 (1986)
4. Maske, H: Role of Zinc in Insulin secretion, Paul B.Hoeber Inc., p. 46 (1962)
5. Lacy, P.E: Diabetes, 28,p.570-576 (1979)
6. Vanley, H: Gowenlock A.H Ball M, Practical clinical Biochemistry, vol I, William Hainemann Medical Book Ltd., London, p. 397-399 (1980).