

LETTERS TO THE EDITOR

Catechol Amines in Bananas

SIR,—In a recent letter to this journal, West¹ suggested that the presence of catechol amines in bananas might give rise to false positive diagnoses of phaeochromocytoma if bananas were consumed during the collection of a 24 hour urine specimen for catechol amine estimation. This seems unlikely in view of the rapid destruction of orally ingested catechol amines, but the suggestion was put to experimental test.

Three normal adults collected 24 hour specimens of urine on 4 consecutive days. On the second day each volunteer consumed between the hours of 9 a.m. and 5 p.m. the pulp from 1 lb. of ripe bananas. A few grammes of pulp from each banana was weighed and dropped into N/100 HCl for estimation of catechol amines. Aliquots of the urine specimens were concentrated by selective adsorption on alumina. Noradrenaline and adrenaline were estimated in the concentrated extracts from urines and banana samples by differential assay on the blood pressure of the cat before and after phentolamine. The cat was anaesthetised with chloralose and pre-treated with atropine, mepyramine and hexamethonium.

The results show that the ingestion of relatively large quantities of banana pulp have no effect on the excretion of catechol amines and are quite unlikely to give rise to false positive diagnoses of phaeochromocytoma. Two of the three samples of banana pulp showed appreciable amounts of adrenaline as well as noradrenaline by the method of assay used. Unfortunately the amounts of amines present in the concentrated extracts were insufficient for chromatographic confirmation of this observation.

Subject	Banana pulp consumed (g)	Catechol amine excretion μg. per 24 hr.			Catechol amines in banana pulp μg. per g.	
		Day	NA	A	NA	A
P.B.M.	294	1	3.7	Nil	0.42	0.44
		2	0.6	5.8		
		3	2.9	3.7		
		4	10.7	3.7		
W.C.	232	1	18.9	Nil	6.25	Nil
		2	11.8	Nil		
		3	8.9	4.0		
		4	1.6	3.6		
R.C.	297	1	7.0	3.6	0.44	1.04
		2	6.0	3.1		
		3	8.3	4.4		
		4	2.6	Nil		

Department of Pharmacology and Therapeutics,
Queen's College, Dundee.

P. B. MARSHALL.

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REFERENCE

1. West, *J. Pharm. Pharmacol.*, 1958, **10**, 589.