

Received : January, 2011; Accepted : February, 2011

Nutritional assessment of *Panipuri* sold by small vendors in Rajkot city and its comparison with home made sample

N.R. DAVE AND D.G. SOLANKI

ABSTRACT

This study was carried out considering the nutritional importance and its assessment as compared to homemade *Panipuri*. The samples were collected from different food zones and homemade food samples were also prepared, homogenized and preserved along with these samples. Food samples were stored at -34° in the freezer. By using the chemical method, different nutrients were analyzed by standard methods such as carbohydrate, protein, fat, fibre, moisture, thiamin, riboflavin, niacin, ascorbic acid, calcium, iron, sodium, potassium. It was observed that amount of carbohydrates, protein thiamin, riboflavin, niacin, ascorbic acid, were more in homemade food as compared to vendors food. Vendor's food samples showed high amount of fat and moisture, as they make more use of oil and water. The vendor's food showed fewer amounts of water-soluble vitamins like vitamin B1, B2 niacin, vitamin C. This is because small vendors start preparation of food very early like cutting and boiling of raw vegetables and they practice the habit of heating very often, therefore water-soluble vitamins are destroyed.

Dave, N.R. and Solanki, D.G. (2011). Nutritional assessment of *Panipuri* sold by small vendors in Rajkot city and its comparison with home made sample, *Food Sci. Res. J.*, 2 (1) : 44-45.

Key words : Vendor's Foods, Home made food, Nutrient composition, *Panipuri*

INTRODUCTION

All the living beings need food. Food is the fuel, which supplies chemical energy to the body to support its daily activities and synthesis of necessary chemicals required by the body. Vendor's food is an essential part of the food system in developing countries. One of the main reasons for it is relocation of vendors in the food centres located at the strategic sites where people congregate in the city. People of all income levels love to eat *Panipuri* from vendors. As apart from savoring their taste buds, it is quickly served and is available at reasonable rates. Now a days numerous variations in this traditional food have become an attraction of customers of all age groups.

This study was important for the broad community interests. The investigation was conducted in Rajkot city, which is the largest city of Saurashtra. This study was carried out considering the nutritional importance and its assessment as compared to homemade *Panipuri*.

MATERIALS AND METHODS

The food items were collected from different food zones of the city and freshly prepared. The samples were collected packed in sterile plastic containers. There after, these samples were individually homogenized in the mixer and packed immediately in the containers. These containers were stored at -34°C in the freezer. Homemade food samples were also standardized, prepared, homogenized and preserved along with these samples.

Next day at 9 A.M, these samples were analyzed to derive nutritive values in laboratory. Carbohydrates, protein, fat, fibre, moisture, pH, calcium, iron, sodium, potassium, vitamin B1, B2, niacin, and vitamin C were estimated. Total carbohydrates by Anthrone method (Sadashivam and Manickam, 1991), fat was analyzed by AOAC (1970), total proteins, ascorbic acid, riboflavin, thiamin by (Sadashivam and Manickam, 1991). Calcium was determined by titrimetric method, AOAC. Sodium, potassium were determined in aqueous solution of ash sample (Jackson, 1973). Colorimetric method using 20%

Table 1: Nutrient composition of different samples

Nutrients	Sample 1	Sample 2	Sample 3	Sample 4	Homemade
Carbohydrate(gm)	6.00*	7.00*	10.00*	4.90*	18.00
Protein(gm)	3.80	2.90*	1.90*	3.15	4.18
Fat(gm)	11.00*	10.00*	10.00*	9.90	5.60
Fiber(gm)	0.20	0.10*	0.21	0.19*	0.20
Moisture (%)	75.00	76.00*	75.00*	73.00*	70.00
Thiamin(mg)	-----*	0.01*	0.01*	0.015*	0.02
Riboflavin(mg)	0.20*	0.20*	0.20*	0.20*	0.70
Niacin(mg)	0.10*	0.17*	0.16*	0.20*	0.80
Ascorbic acid (mg)	0.05*	0.50*	0.50*	-----*	7.00
Calcium(mg)	20.00*	21.00	16.80*	15.00*	25.00
Iron(mg)	0.08*	0.09*	0.16	0.16*	0.19
Sodium(mg)	16.60	17.00*	10.10	19.00	10.10
Potassium(mg)	27.70	27.00*	25.00*	27.00*	27.00

*= Significant (T-value <0.05) Not-significant (T-value >0.05)

KCNs and 2N Hcl determined iron.

As per the above observations of the samples collected, it was observed that the various nutritive properties have variations in their values, after applying the scientific statistical tools (t-test) on the same data. It was observed from the analysis that the calculated value was more/less than the tabulated value (approach p value); therefore the hypothesis is accepted or rejected.

RESULTS AND DISCUSSION

By using the above mentioned procedures, different nutrients were analyzed. The nutrient content of all the samples are shown in the Table 1. All these values are from 100 gm of sample. It was observed that amounts of carbohydrates and proteins were more in homemade food as compared to vendor's food because homemade food makes more use of potatoes and chickpea. Vendors' food samples showed high amount of fat as they make more use of *puri* in masala and moisture content was also high. The vendors food showed less amount of water-soluble vitamins like vitamin B1, B2 niacin, vitamin C and amount of minerals like calcium, iron, potassium, were also considerably low in vendor's food. The amount of niacin and riboflavin was high in homemade food as food rich in carbohydrates are rich in these vitamins. The amount of calcium and iron was high in homemade food as dates were used in it. This is because small vendors start preparation of food very early like cutting and boiling if raw vegetables used and they practice the habit of heating very often, therefore water-soluble vitamins are destroyed.

Conclusion:

Thus, it is observed that nutritive quality of vendor's food was very poor. Although it may savors the taste buds but it is not fit for consumption. Moreover, it may invite various ailments amongst its consumer. Although vendors food saves time but it is heavy on our pockets and not healthy from nutritive point of view.

REFERENCES

- A.O.A.C. (1970).** Official methods of analysis, (11th Ed.) Association of Official Analytical Chemists, Washington, D.C.
- Jackson, N.L. (1973).** Soil Chemical Analysis, Prentice Hall of India Pvt. Ltd. New Delhi.
- Sadashivam, S. and Manickam, A. (1991).** *Biochemical methods for agricultural sciences.* Wiley Eastern Ltd. New Delhi.

Address for correspondence :

N.R. DAVE
Department of Food and Nutrition
Saurashtra University,
RAJKOT (GUJARAT) INDIA

Authors' affiliations :

D.G. SOLANKI
Department of Food and Nutrition
M.V.M. Science and Home Science College,
RAJKOT (GUJARAT)

