Awareness on monosodium glutamate among elderly population

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ABSTRACT

Introduction: Mono Sodium Glutamate (MSG) is a flavor enhancer commonly used in soups, fried rice, stews and other foods. The aim of this study was to assess the awareness of MSG among elderly population. Materials and Methods: This questionnaire based study was administered through an online survey planet link to the participants. Results and Conclusion: Results were collected and statistically analysed. Worldwide and national bodies administering nourishment added substances at present consider MSG alright for human utilization as a flavor enhancer. More research may be required to analyze the exact mechanism of action of MSG in human body and its impact on metabolism.

KEY WORDS: Mono sodium glutamate, Survey planet, Umami

INTRODUCTION

The globalization has affected all pieces of human life and has in like manner affected the dietary examples of people.[1] Processed food has superseded the sound and nutritious sustenance.[1] Factors which have made taken care of sustenance progressively consumable are time factor (viably available), taste factor (incredible in taste), and advance (packaging) and take note.[2] The taste factor has made the researcher think, what is the essential central purpose which is persuading the customers to eat these things? One of the proper reactions they found was the proximity of “Mono Sodium Glutamate (MSG),”[3] MSG, (by and large known as MSG), is an unnecessary amino corrosive which is a sodium salt of glutamic corrosive.[4] Glutamic corrosive is generously found in nature such as in tomatoes, grapes, cheddar, mushrooms, and distinctive sustenance.[5,6] In some Asian countries such as China and India, this MSG is extensively known as Ajinomoto or Vetsin. It is one among the most wide spread sustenance added substances included business nourishments. Its use has expanded in the course of time and it is found in numerous contradictory fixings and in solidified or prepacked sustenance that is available in each market or supermarket. It has been routinely utilized in the sustenance business for over a century as a flavor enhancer, giving the nourishment an “umami” enhance that forcefully supports the exquisite or the substantial taste of the sustenance item, precisely as normally happening glutamate follow-up on meat stews and soups[7] alongside salty, harsh, severe, and sweet tastes. In spite of the reality, MSG is unavoidably connected to Chinese sustenance and obviously a reason for Chinese eatery disorder; it was imagined in “Japan.” MSG was made in 1908 by an inquisitive researcher, Professor Kikunae Ikeda, who was attempting to duplicate the appetizing preference for his significant other’s dashi soup. The code was to withdraw the amino corrosive called glutamate. The dried kombu (kelp) his significant other used to make the soup contains glutamate and Ikeda comprehended that glutamate causes the fifth taste sensation, which he named “umami” (tempting the average). Ikeda created MSG by blending glutamic corrosive with common salt and water, which settled the uns table fixing.[8] By 1909, MSG was licensed and mass created, striking store retires as Ajinomoto, which signifies “the substance of taste.” The typical step-by-step admission of MSG is 0.55–0.58 g in the US and UK and 1.2–1.7 g in Japan and Korea. The U.S. Nourishment and Drug Administration (FDA) has named MSG under “by and large perceived as protected” list. In spite of this, MSG still has a dark imprint around its
reality. A predominant supposition among the general population is that admission of a lot of MSG causes cerebral pains and different side effects all together known as the “Chinese eatery disorder (CRS).”\textsuperscript{9} Interestingly enough, 2-fold visually impaired and fake treatment controlled tests have demonstrated that such responses were not experienced when MSG was directed through sustenance.\textsuperscript{10} Glutamic corrosive works as a synapse in our cerebrum. It is an excitatory synapse, i.e., it invigorates nerve cells so as to transfer its flag. People ensure that MSG prompts unrestrained glutamate in the brain and over the top instigation of nerve cells. In this way, MSG has been denoted an Excitotoxin. Fear of MSG dates as far back as 1969 when an examination found that injecting broad doses of MSG into newborn child mice caused frightful neurological effects. Since by then, books as Blaylock Russell’s “Excitotoxin: The Taste That Kills” have kept this fear of MSG alive. The realities affirm that extended glutamate development in your cerebrum can cause hurt and that tremendous parts of MSG can raise blood measurements of glutamate \textsuperscript{11} Figure 1. In one examination, a Uber segment of MSG extended blood levels by 56%. However, dietary glutamate should have by zero effect at the forefront of your thoughts, as it cannot cross the blood-cerebrum deterrent in generous wholes. All things considered, there is no persuading evidence that MSG goes about as an Excitotoxin when eaten up in conventional aggregates.\textsuperscript{11} In spite of the way that MSG is managed like an untouchable extension to sustenance, it is typically found as glutamate in reality all the sustenance we exhaust. The two are like the point that our body finally uses them both comparatively in infant youngsters similarly as in grown-ups.\textsuperscript{12} Of course, a couple of scientists believe that primates and individuals are not as defenseless against Excitotoxin when diverged from rodents in this way, there is no necessity for stress over using MSG as a sustenance included substance. Notwithstanding the way that the actualities exhibit that the combined effects of all sustenance bound Excitotoxin should be considered, the blood plasma level estimations of glutamic destructive after an MSG-rich dinner are inside a perfectly shielded utmost.\textsuperscript{13} As such, this investigation intends to determine and reveal the care on use of MSG among students. Through this audit, the data about MSG among understudy will be pinpointed, and the rates of relating suppositions will be seemed proper genuine data.

RESULTS AND DISCUSSION

These are the obvious outcomes gotten in answer to the requests of a survey. The statistical background of the suppositions, complaints, and impacts confronted was as per the following.

The people who took up the survey were put up a question whether they prefer fast food or not and the majority that is around 62% answered yes and 38% answered no. These outcomes show that MSG, utilized as nourishment additive (E 621), may influence eating conduct, prompting a «loyalty» for glutamate enhanced nourishment and an addictive conduct. One of the hidden reasons for this wonder might be the way that MSG activates chorda tympani neurons, by stimulating separate receptors for Na\textsuperscript{+}, sugars, and glutamate, in taste bud cells.\textsuperscript{14} The specific flavorful taste (“umami”) is inspired by the two parts of MSG: glutamate anion and Na\textsuperscript{+} cation.\textsuperscript{15}

The people who took up the survey were inquired whether they are aware of MSG added in fast food. Majority that is 60% among 100% are aware of what is MSG and its consequences only 40% among the population are not aware of what is MSG [Figure 2]. Umami is the flavor of glutamate, which

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{fast_food.png}
\caption{Do you prefer fast food}
\end{figure}

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{ MSG aware.png}
\caption{Are you aware of monosodium glutamate added in fast food}
\end{figure}
is an appetizing flavor found in numerous Japanese sustenance, bacon and additionally in the harmful sustenance added substance MSG. It is a result of umami that sustenance with MSG tastes heartier, more vigorous, and by and large better to many individuals than sustenance without it. MSG is an Excitotoxin, which would not joke about this overexcites your cells to the point of harm or passing, causing cerebrum harm to change degrees and possibly notwithstanding activating or compounding learning handicaps, Alzheimer’s infection, and Parkinson’s sickness.

People who took up the survey were asked about their opinions whether consuming MSG is a health hazard and majority that is around 68% answered yes and very few that is around 32% answered no [Figure 3]. MSG may impact you to gorge, prompting corpulence. Quickened heartbeat, chest torment, and shortcoming additionally are a portion of the responses people partner with MSG. Different expressions for MSG are Chinese eatery disorder, glutamate-induced asthma, sausage cerebral pain, and MSG disorder. MSG harming alludes to a group of side effects perceived as an unfriendly response to MSG. [16,17]

CONCLUSION

Worldwide and national bodies administering nourishment added substances at present consider MSG alright for human utilization as a flavor enhancer. More research may be required to analyze the exact mechanism of action of MSG in human body and its impact on metabolism.

REFERENCES


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Figure 3: Do you think consuming monosodium glutamate is a health hazard