Case report

Unilateral Palatal Pizza Burn- A case report

1Dr. Shivali Srivastava, 2Dr. Deepa Somanath, 3Dr. S. S. Rajasekar

1Post graduate, Department of Anatomy, Sri Manakula Vinayagar Medical College and Hospital, Pondicherry, India
2Assistant Professor, Department of Anatomy, Sri Manakula Vinayagar Medical College and Hospital, Pondicherry, India
3Professor and Head, Department of Anatomy, Sri Manakula Vinayagar Medical College and Hospital, Pondicherry, India

Corresponding author: Dr. Shivali Srivastava
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Abstract:
With the advent of modernization, various electrical appliances are being used for quick and effective cooking. However, there are some hazards of such utilities about which one should be aware. The following report discusses one such case. A female patient, aged 24 years, complained of pain and burning sensation on the right side of the palate, following intake of microwave heated Cheese pizza. The present case throws caution towards the consumption of microwave heated cheese products, treatment of palatal burns due to thermal injuries.

Keywords: Pizza burn, Cheese burn, Palatal thermal injury

Introduction:
With the advent of modernization in various fields, countless electronic gadgets have come into use. An excellent example would be the widespread usage of Microwave ovens not only for commercial purposes but also in the domestic setup. A microwave oven, otherwise called as a microwave, is a kitchen appliance that heats food quickly, and reduces the cooking time effectively. However, there are also various hazards of using a microwave. One such example is consumption of microwave heated food products like cheese, eggs and some other liquids leading to thermal injuries to the oral mucosa. The following report presents one such case.

Case report:
A female patient, aged 24 years, came with complaints of pain and burning sensation on the right side of the palate. She gave history of having eaten microwave heated cheese pizza two days before consultation. Immediately after eating the heated food stuff, she drank cold water. The next morning, she noticed a blister on the right side of the palate which she ruptured with a toothbrush. This resulted in an ulcer formation with a burning pain at the same site. The following day she came for consultation and clinical examination revealed a well circumscribed round ulcer on the right side of the hard palate, with surrounding erythema. The patient was advised to use chlorhexidine mouth wash along with topical application of triamcinolone and topical xylocaine ointment. The patient was instructed to take Azithromycin (Antibiotic) and Ibuprofen (Anti-inflammatory) for three days. She was advised to avoid hot and spicy food and drinks. The patient was asked to report for follow up after four days.

On the next visit, the clinical examination revealed a well-defined lesion with irregular margins on the right side of the hard palate, surrounded by whitish areas of mucosal damage as well as erythema in the adjoining areas. The erythema had subsided substantially (Figure 1 and 2). She was directed to continue the topical application and mouth wash for another week.

The lesion healed well over the next eight days.
Discussion:
With the advent of westernization in our country, food stuffs like pizza and pie have become quite popular. Cheese is often used as a topping as well as one of the ingredients for such dishes. Quick preparation and heating of these dishes requires the use of a microwave and other similar appliances. Thermal injuries to the oral mucosa are thus very common.

The most common areas to be affected by thermal injury from consuming hot cheese are the palatal arch and anterior part of tongue\(^1\). The hard palate is covered by thick mucosa that tightly adheres to the underlying periosteum, which is the reason lesions of the hard palate are very painful. It is lined by keratinized stratified squamous epithelium which may show regional variations\(^1-3\).

A microwave heats foods by passing non-ionising electromagnetic radiation with a frequency lower than infra-red light. In the process of heating, deposition of heat energy inside the food can be more than that on its surface especially so in food stuffs containing cheese. Most types of cheese are hard at room temperature. The presence of a gel like protein matrix in the cheese is broken down by heat into a viscous liquid. Such hot molten cheese characteristically sticks to the surfaces it comes in contact with\(^4, 5\).

In the present case report, the patient developed a blister which she ruptured using a toothbrush. Had she left it as a blister, the edema would have subsided and the lesion would have healed in a few days. Once the blister was ruptured, erosion developed and the presence of a raw area on the right side of the palate caused her pain as well as prolongation in the time of healing.

The treatment for palatal burns/palatal erosion due to thermal injury is quite simple. The patient should avoid intake of spicy, hot food. Usage of anti-inflammatory drugs, topical steroid and anaesthetic ointment helps in healing as well as pain relief\(^1, 2\). In case of suspected infection antibiotics can be prescribed.

Conclusion:
The present case report throws light on a painful thermal injury of the hard palate occurring as a result of consuming microwave heated cheese. The microwave is an appliance which saves time and enhances the culinary skills in modern times. However it is to be noted that a microwave also has various hazardous effects one of which is discussed here. It is suggested that one should be aware of such effects by knowing that the temperature of food stuffs like cheese, egg and other liquids on their surface may be lesser compared to the internal temperature. Also, in case of blister formation, one should not rupture or puncture it. The blister will subside on its own in a few days, rupturing it will only cause more pain and increment in the healing time.

Figure 1, 2: Figure showing irregular margins of a well-defined palatal erosion and surrounding erythema
References:


