

# A Case Report on Delayed Allergic Reaction Following Prolonged Consumption of Amla-Buttermilk Juice in a Hypersensitive Individual

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**Abstract**—Amla (*Phyllanthus emblica*), commonly known as Indian gooseberry, is often regarded as a superfood due to its antioxidant and immune-boosting properties. Buttermilk is also widely consumed for gut health. Despite these benefits, rare cases of adverse reactions may occur in predisposed individuals. This case report presents a delayed onset allergic reaction in a 45-year-old woman following daily consumption of a homemade amla-buttermilk juice for over 45 days. Symptoms included diarrhoea, generalized itching, and severe skin dryness. Elevated IgE antibody levels were detected. Symptoms persisted even after cessation and required medical intervention. This suggests that individuals with allergic predispositions should approach natural health remedies with caution.

**Index Terms**—Amla, Butter milk, Allergic reaction, IgE, Food Allergy.

## I. INTRODUCTION

Amla (*Phyllanthus emblica*), or Indian gooseberry, is traditionally used in Ayurvedic medicine due to its high vitamin C content and polyphenolic compounds, offering antioxidant and immune-supporting benefits [1]. Buttermilk, a probiotic-rich fermented dairy product, supports digestion and gut flora balance [2]. Although both ingredients are individually beneficial, hypersensitivity reactions may occur in rare cases. This case highlights a unique allergic response resulting from the regular combination of these natural products.

## II. REVIEW OF LITERATURE

Several studies have highlighted the pharmacological benefits of Amla (*Phyllanthus emblica*), including its antioxidant, immunomodulatory, and gastroprotective properties. For instance, a review by Jain et al. (2016)

noted its significant role in immune regulation and liver protection. However, there is limited documentation of allergic responses associated with Amla in the scientific literature. Similarly, buttermilk has been shown to improve gut microbiota and digestion through its probiotic effects (Bhat et al., 2019). Despite these health benefits, dairy-based probiotics may cause allergic responses in lactose-intolerant or immunologically sensitive individuals. The lack of comprehensive allergy-focused studies on Amla and buttermilk mixtures underlines the importance of this case report.

## III. CASE PRESENTATION

The subject is a 45-year-old female with a medical history of hypersensitivity to brinjal, dry fish, and mosquito bites. She was on thyroxine 25 mg for hypothyroidism and consumed homeopathic remedies for diabetes. Her lifestyle included a balanced diet rich in fiber, greens, and fruits, and she avoided fat and sugar-sweetened beverages. In March, she began consuming a homemade juice consisting of one large amla, 20 grams of curd, a small piece of chili, ginger, curry leaves, salt, and water—totaling 350 ml—daily between 11:00 and 11:30 a.m. After initial mild diarrhoea, she removed chili and ginger and continued for 45 days. Around day 20, generalized itching began and worsened gradually, along with increased skin dryness. Despite drinking adequate water and taking antihistamines (Xyzal), symptoms persisted. A discussion with her physician led to the discontinuation of the juice. However, itching continued, and blood tests revealed an elevated IgE level of 475 IU/mL. Allopathic treatment with Teczine and Dazit was initiated, resulting in gradual symptom relief.

#### IV. DISCUSSION

Though amla and buttermilk are widely considered safe and beneficial, their combination may act as a trigger in sensitive individuals. Elevated IgE levels are indicative of a Type I hypersensitivity reaction, where exposure to allergens stimulates antibody production. Previous studies have documented allergic responses to various natural products including amla, particularly in individuals with pre-existing sensitivities [3]. The immune system may react to unknown allergens or proteins in the combination, especially when consumed regularly. The persistence of symptoms after discontinuation supports the likelihood of a delayed-type allergic reaction.

#### V. CONCLUSION

Natural remedies are often considered universally beneficial, but their impact varies among individuals. This case underscores the importance of personalized health recommendations and suggests the need for clinical awareness regarding potential hypersensitivity reactions to commonly used natural foods. Further research is needed to explore the immunological basis of such reactions.

#### REFERENCES

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