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### RESEARCH ARTICLE

#### CASE REPORT: CUMMIN SEEDS A CAUSE OF RECTAL IMPACTION.

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#### Abstract

Cuminum cyminum or cummin seeds, a commonly known herb is used as a home remedy for treating minor ailments including indigestion, constipation and abdominal pains. Our case report is of a rare presentation in which this unsupervised and non regulated use of cummin seeds had led to rectal impaction of these seeds contrary to their role of providing relief. Hence, specifying the need for scientific evidence and rational use of these herbs for treating various ailments.

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#### Introduction:-

Cuminum cyminum is a flowering plant that belongs to family Apiaceae. Known as *KYMINON* in Greek, *JEERA* in Hindi and *KAMMUN* in Arabic, it is extensively used in culinary practices of the Indian Subcontinent and some other Asian, African and Latin American countries<sup>1</sup>. It was known to Egyptian civilization five millennia ago and also has references in Bible. From local ailments like flatulence and indigestion to cancer and diabetes, the role of cumin seeds have been an area of interest both in the home remedies as well as in the medical research laboratories<sup>2</sup>. However, the lack of supervision by a trained medical personnel that comes with non regulated use of such herbs have brought forward few cases which led to complications of cumin seeds as impacted faeces, perianal pain and even impeding rectal perforation. Following are two rare case reports of unusual faecal impaction due to long term and excessive use of cumin seeds for indigestion.

#### Case History 1:-

55 yr old man, spice vendor presented with chronic constipation for 2-3 months with recent onset of perianal pain since 4 days. On taking further history he had complaints of vague abdominal discomfort since one year. Attributing it to dyspepsia or 'indigestion' he had turned to the traditional home remedies of consuming cumin seeds from time to time. However, he never took any medical practitioners' advice or any over the counter drugs for his complaints. He claimed the cumin seeds had relieved his symptoms temporarily.

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The per rectal examination revealed large quantity amount of undigested cumin seeds with minimal feces (Figure1).



**Figure 1:-** Fecal matter mixed with Cummin seeds after manual removal of feces per rectally

**Case 2:-**

60 year old man was in the habit of consuming cumin seeds for chronic abdominal pain. He presented with abdominal distension and constipation since three months. Per rectal examination revealed gross quantity of cumin seeds and feces(Figure 2). The erect abdominal X-ray revealed air fluid levels.



**Figure 2:-** Impacted feces with cummin seeds on visual per rectal examination of the patient.

Both patients were managed conservatively with simple soap water enemas and laxatives per orally. When they did not respond they were taken up for manual removal of feces under anaesthesia. Figure 1 and 2 show the impacted cumin seeds present per rectally and the amount of cumin seeds removed manually.

Both the patients were relieved of the symptoms and were discharged with advise of stool softeners and high fibre diet. With dietary and lifestyle modifications they have been relieved of their dyspepsic and indigestion symptoms.

### Discussion:-

'HOME REMEDIES' are simply prepared medications or tonic often of unproven effectiveness administered without prescription or professional supervision. Cummin seeds and its extracts are commonly used as home remedies for treating indigestion and altered bowel habits. Cumin contains volatile oil (3-4%), cuminaldehyde, the major active principle, which is present to an extent of 45-50%<sup>[3]</sup> Alcohol and water extracts of cumin in literature have been reported to possess many nutraceutical properties like anti-diabetic<sup>[4]</sup> antioxidant,<sup>[5]</sup> anti-bacterial,<sup>[6]</sup> anti-fungal,<sup>[7]</sup> bronchodilatory,<sup>[8]</sup> hepatoprotective and renoprotective,<sup>[9]</sup> chemopreventive,<sup>[10]</sup> anti-epileptic,<sup>[11]</sup> Hypolipidemic,<sup>[12]</sup> male anti-fertility<sup>[13]</sup> memory-enhancing and anti-stress<sup>[14]</sup> effect. Deoiled cumin, which generates from essential oil and oleoresin extraction Consists of 12.26% SDF (Soluble Dietary Fiber) and 71.92% IDF (insoluble dietary fiber).<sup>[15]</sup> SDF appears to be more bioactive than IDF due to its fermentability and viscosity and has shown to increase bowel motility and decrease gut transit time. Approximately 30% SDF should be consumed on a daily basis.<sup>[16]</sup> The relatively low content of SDF in cumin seeds can explain its role contrary to its use for relieving constipation and improving altered bowel habits as traditional home remedy. Further in an experimental study conducted on albino mice by sahu et al,<sup>[17]</sup> aqueous extracts of cumin seeds have been shown to possess anti diarrhoeagenic properties with decrease in stool frequency and modest reduction in intestinal transit. The cause has been attributed to decreased prostaglandin synthesis (PGE1), reduced intestinal muscle contraction and decreased intestinal motility. Prolonged intake of cummin seeds causing rectal impaction leading to acute obstruction in our case may be explained by these very properties. All these studies in literature and our case report throw light on the serious consequences which can happen by unsupervised and unregulated use of spices and herbs as home remedies.

### Conclusion:-

Though prevalent in various cultures and ethnicity, home remedies need to be monitored and supervised by skill medical personnel having a sound knowledge of the literature, side effects or even hazards associated with them. By knowing the mechanism that might explain the indigestion and anti diarrhoeagenic properties of cumin extracts, there also arises a need to study evidence and scientific basis of the various other home remedies that are used routinely to treat minor ailments.

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