Intestinal colic caused by food

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EDITORIAL SYNOPSIS  Bolus colic in children eating unripe apples is well recognized but the many possible causes in adults are less well known; its importance, particularly in patients who have had partial gastrectomy, is well brought out in this paper.

Intestinal colic following meals is a common complaint, but in most cases when patients complain of such colic it is dismissed in a cloud of vague terminology such as 'food sensitivity', 'intestinal hurry', 'intestinal irritation', or even 'wind colic'. Possibly there is at times truth in each of these expressions but in the majority of cases the real cause of the colic is largely unknown. The purpose of this paper is to present evidence that some cases of post-prandial intestinal colic are due to incomplete or temporary obstructive episodes caused by a food bolus.

Since Eichhorst in 1940 first reported a case of obstruction of the small intestine by a bolus of 909 cherry stones, many foodstuffs have been incriminated in causing similar obstructive episodes. In reviewing the literature, Ward-McQuaid (1950) found reports of 178 patients with small intestinal obstruction caused by 45 different materials. Records of 53 different foodstuffs which had been similarly associated were reported from this Department in 1964, and to this was added a further case of obstruction being caused by a bolus of partially cooked rice (Stephens, 1964). Since that time a further review of the literature has revealed another nine foods which have been incriminated. These are Christmas pudding (Keynes, 1950), meat (Payne, 1950), methylcellulose (Desjacques, Pouyet, and Bene, 1952; Francillon, 1952), macaroni (Pecora, Pepe, and Cooper, 1952), kidney beans (McCabe and Knox, 1963), prune stone (Rosen and Shapiro, 1964), potato skin (Wilde, 1965), wild peaches (Seith, 1965), and a case of grass ball obstruction of the ileum in an 18-year-old psychologically disturbed youth (Kune, 1965).

In reporting our case of obstruction caused by a bolus of rice it was postulated that the bolus might have passed spontaneously had conservative measures been instituted, but only after the patient had suffered further colicky pain (Stephens, 1964). This postulate was supported by evidence presented by Powley (1961) who wrote of an edentulous gastrectomized patient who had suffered colicky pain and abdominal distension on several occasions after eating meals of tripe. Ultimately on one such occasion after eating tripe he developed such severe symptoms that a laparotomy was performed. He was found to have obstruction of the ileum by a large bolus of tripe. It was considered that his previous attacks of pain had been due to temporary or incomplete obstructive episodes caused by a bolus of tripe. Two recent reports lend further evidence in support of this concept. Tolstedt and Bell (1963) reported three cases of sauerkraut causing small bowel obstruction in patients with poor dentition. In two of these cases treatment was medical and symptoms subsided spontaneously. One patient had had a total colectomy with terminal ileostomy two years previously. He presented with colicky abdominal pains for two hours, high-pitched bowel sounds, and abdominal distension and radiological evidence confirming small bowel obstruction. The ileostomy was found to be open and unobstructed on digital examination. Shortly after admission a large bolus of food passed spontaneously through the ileostomy and recovery followed. One year later the patient had a similar episode following the ingestion of a large lettuce salad. Abel (1964) reported two cases of gastrectomized patients who presented with severe colic and with clinical and radiological evidence of small bowel obstruction after eating cabbage and orange respectively. Both cases were treated conservatively after a diagnosis of food bolus obstruction was confidently made, and recovery ensued spontaneously in one patient and after repeated enemata in the other. Abel emphasized the need for close and careful hospital observation if non-operative treatment was to be followed.

How frequently post-prandial colic is due to a temporary or incomplete bolus obstruction is un-
certain, but there is now evidence to suggest that this
does constitute a definite clinical syndrome which
may on occasion be recognized with reasonable con-
fidence. Although oranges, persimmons, and dried
fruits are most commonly responsible for an actual
bolus obstruction, it would seem that a large number
of foodstuffs could, on occasion, cause such
symptoms in different patients. The following are the
materials which have been found in the literature to
have been clearly incriminated in causing bolus
obstruction:

<table>
<thead>
<tr>
<th>Foodstuff</th>
<th>Incriminated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Almonds</td>
<td>Lemon pith</td>
</tr>
<tr>
<td>Ammunition bread</td>
<td>Lettuce leaves</td>
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<tr>
<td>Apples</td>
<td>Locusts</td>
</tr>
<tr>
<td>Apricots</td>
<td>Macaroni</td>
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<tr>
<td>Banana</td>
<td>Meat</td>
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<tr>
<td>Beans</td>
<td>Methylcellulose</td>
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<tr>
<td>Bones</td>
<td>Mushrooms</td>
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<tr>
<td>Bran</td>
<td>Oats</td>
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<tr>
<td>Brussels sprouts</td>
<td>Orange</td>
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<tr>
<td>Butter beans</td>
<td>Peaches</td>
</tr>
<tr>
<td>Cantaloup</td>
<td>Peanuts</td>
</tr>
<tr>
<td>Carrots</td>
<td>Peas (with beans)</td>
</tr>
<tr>
<td>Celery</td>
<td>Peas (with fruit)</td>
</tr>
<tr>
<td>Cherries</td>
<td>Persimmons</td>
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<tr>
<td>Cherry seeds</td>
<td>Popcorn</td>
</tr>
<tr>
<td>Chicken skins</td>
<td>Poppy seeds</td>
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<tr>
<td>Christmas pudding</td>
<td>Potatoes</td>
</tr>
<tr>
<td>Coconut</td>
<td>Potato skin</td>
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<tr>
<td>Coleworts</td>
<td>Prunes</td>
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<tr>
<td>Cucumber</td>
<td>Prune stone</td>
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<tr>
<td>Figs</td>
<td>Radish and garlic</td>
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<tr>
<td>Fish scales</td>
<td>Raisins</td>
</tr>
<tr>
<td>Fruit (unspeciﬁed)</td>
<td>Rice</td>
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<tr>
<td>Garlic bulb</td>
<td>Sauerkraut</td>
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<tr>
<td>Gooseberries</td>
<td>Sweet potato</td>
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<tr>
<td>Grapes</td>
<td>Tomato skins</td>
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<tr>
<td>Grass ball</td>
<td>Tripe</td>
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<tr>
<td>Grasshoppers</td>
<td>Turtle eggs</td>
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<tr>
<td>Green corn</td>
<td>Watercress</td>
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<tr>
<td>Kidney beans</td>
<td>Watermelon</td>
</tr>
<tr>
<td>Kriege-Brot</td>
<td>Wild peaches</td>
</tr>
</tbody>
</table>

Patients with poor dentition or who are edentu-
losum, patients who rush meals or otherwise fail to
masticate their food adequately, and particularly
patients who have had partial gastrectomy, are at
special risk and should be advised to take particular
care in the selection and mastication of their food.
Especially should they avoid foods with a high cellu-
lose or ﬁbre content, but also they should avoid food
which may have caused them intestinal colic on a
previous occasion.

SUMMARY

A review of the literature has shown 63 foodstuffs
which have been incriminated in causing organic
obstruction of the small bowel by a food bolus.
Evidence is given that post-prandial abdominal
colic can also on occasion be due to temporary or
incomplete obstructive episodes due to food.
It is suggested that edentulous people, people
who rush meals, and particularly people who have
had partial gastrectomy, are at special risk and
should be advised to take appropriate precautions.

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Gut 1966 7: 581-582
doi: 10.1136/gut.7.6.581

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