

What You Need To Know – Abdominal Gas and its Practical Management

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INTRODUCTION

Complaints about gas are very common⁽¹⁾. Patients attribute many digestive symptoms to what they perceive as gas and “wind”, especially in the local context. In the great majority of people, most of the symptoms are normal and harmless, and do not denote any serious disorder. People belch and pass flatus one time or another⁽²⁻⁴⁾. Everybody has gas in his digestive system. It comes from swallowed air, gas produced by food and gas produced by normal digestive processing. The main contents of this gas are nitrogen, oxygen, hydrogen, carbon dioxide and methane^(5,6).

What to look for in the history

A careful history of what the patient means exactly by gas symptoms is of great value in deciding whether any investigations are needed as well as what aspect of therapy is most likely to succeed^(3,7,8). The history, besides looking for positive features of functional bowel disorder, should ask for drug history especially NSAIDs, and drugs that slow digestive tract transit time, eg., anticholinergics, calcium channel blockers, and food items that contain lactose, sorbitol and fructose^(6,9,10). Of importance are past abdominal surgery (adhesions causing distension), recent travel, underlying diabetes mellitus or hypothyroidism, and looking for any “alarm signals” suspicious of more serious disorders. These would include symptoms of anaemia, ascites with its underlying causes, weight loss, change of bowel habits, features of intestinal obstruction, gastrointestinal bleeding, fever, jaundice and family history of any gastroenterological disease.

Clinical presentation

(1) Passing gas from above. This is belching or burping and comes from the gas in the stomach. Belching is rarely due to disease. It can become habitual as air is sucked in during each belch^(7,8,11). Aerophagia can be subconscious and the patient is often surprised to learn of the existence of this and the vicious cycle of belching and swallowing air accompanied by an increasing intensity of anxiety.

(2) Passing gas from below or flatulence is more embarrassing to the person and he (or his colleagues) may find his frequency intolerable. Everybody passes flatus several times a day. In fact, the volume of this

gas in healthy people has been measured. It averages about 600 cc per day but there is great variation, and can be up to 2 litres a day in some healthy people^(5,6,9,10).

(3) Abdominal bloating and fullness. This is very subjective and those who complain of this are often normal without any evidence of any actual increase in gas content in the digestive tract. Hence the explanation that it is related to perception and sensitivity or level of intolerance^(12,13). This may vary in the same person especially according to levels of stress. It may be felt mainly in the upper abdomen or as generalised fullness. However, a careful history is nevertheless needed as sometimes, abdominal fullness, especially in older people, needs investigation.

(4) Often associated with the abdominal bloating sensation, the patient complains of breathing discomfort. This can be explained to the patient that the gas in the stomach pushes on the diaphragm causing a sensation of breathing difficulty but this is harmless in the absence of other cardio-respiratory features.

(5) Borborygmi. Commonly the patient is worried about loud gurgling sounds made by the intestines. If there are no features to suggest intestinal obstruction, the patient should be reassured that such gut noisiness is usually harmless^(10,14).

(6) Abdominal distension. Actual visible increase in size of the abdomen is more serious. Distension which is occasional in an otherwise well patient is usually due to functional abnormality without any underlying disease. However, distension which is rapid, persistent or progressively increasing in size may be due to disease and need investigations. Sub-acute intestinal obstruction or the development of ascites have to be kept in mind.

Investigations

Where the history is suspicious or in the rare case where physical examination has found something, some tests may be required to exclude underlying diseases. Depending on the presenting features, this may include investigations to find reflux oesophagitis, peptic ulcer, upper and lower gastrointestinal tract cancers, gallstones, GIT infections, pancreatic disease, endocrine disorders, etc. These tests include blood counts, stools microscopy and culture, abdominal X-

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rays (erect and supine for multiple fluid levels of intestinal obstruction), ultrasound, endoscopy.

Therapy plan

(1) Evaluation by means of a careful history with exclusion of the likelihood of disease followed by awareness and correction of over-sensitivity and perception. This will go a long way to diminish the degree of abdominal discomfort from gas rather than trying to get rid of the gas itself. Often, explanation and reassurance by the doctor is good enough^(7,8,12).

(2) Air-swallowing, often subconsciously, is usually a major factor. The patient should be advised not to drink or eat too fast. Such patients also tend to talk too much while eating. Air-swallowing which is due to anxiety, depression, stress or hurry should be recognised.

(3) Regular bowel habit is useful, with avoiding constipation. However, too much fibre, including pharmaceutical preparations can make more gas^(7,10,13). Therefore, the patients should be advised to do everything in moderation.

(4) Anxiety, tension, depression or stress may need looking into.

(5) Abdominal gas problems are often part of the common irritable bowel syndrome^(1,7,12). We should remind ourselves to treat the whole person.

(6) Medications have limitations and there are numerous available on the market. Drugs that may help include those that increase stomach emptying (pro-kinetics eg., domperidone and metoclopramide), antacids, H₂-antagonists, anti-spasmodics, drugs for constipation, activated charcoal, simethicone, etc⁽¹⁵⁾. Treatment for infections where indicated especially for Giardiasis. Drugs for irritable bowel syndrome, anxiolytics and mild anti-depressants may be useful. Eradication of *Helicobacter pylori* possibly helps but the evidence is not strong⁽¹⁶⁾.

(7) Foods to avoid generally have a limited role in therapy except in some specific organic disorders, unusual dietary fads, and in lactose intolerance, although patients expect detailed advice on diet and gas. People with lactose intolerance should decrease consumption of milk and milk products. Actually, most normal adults of Chinese origin have considerable lactose intolerance⁽¹⁷⁾. It is suggested that the maximum amount of milk tolerated is less than 200 cc a day in such adults, but milk remains a valuable source of nutrition in children^(18,19). Low-lactose milk products may not solve the problem of lactose intolerance because other added contents may also cause bloating. Taking lactase enzyme also has limited usefulness. Other foods that may make gas symptoms worse include starch, beans, broccoli, cabbage, prunes, raisins, sprouts and other fruits and vegetables which contain high content of non-absorbable carbohydrates^(10,13,18). However we must take the whole picture, and avoiding so many vegetables probably do more harm than good for our overall

health. Coronary and cerebro-vascular diseases cause infinitely more mortality than abdominal gas.

(8) Regular exercise and general fitness are valuable in a person highly disturbed by gas symptoms.

CONCLUSION

Patients with the main complaint of abdominal gas and its associated symptoms are very common in primary care and generally they do not have serious underlying disease. Nevertheless, the amount of discomfort and distress caused and disruption of work efficiency can be severe. The approach is to find out in the clinical features how probable is the possibility of underlying serious disorders, select those who require investigations and manage as a whole the many aspects of this common problem.

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