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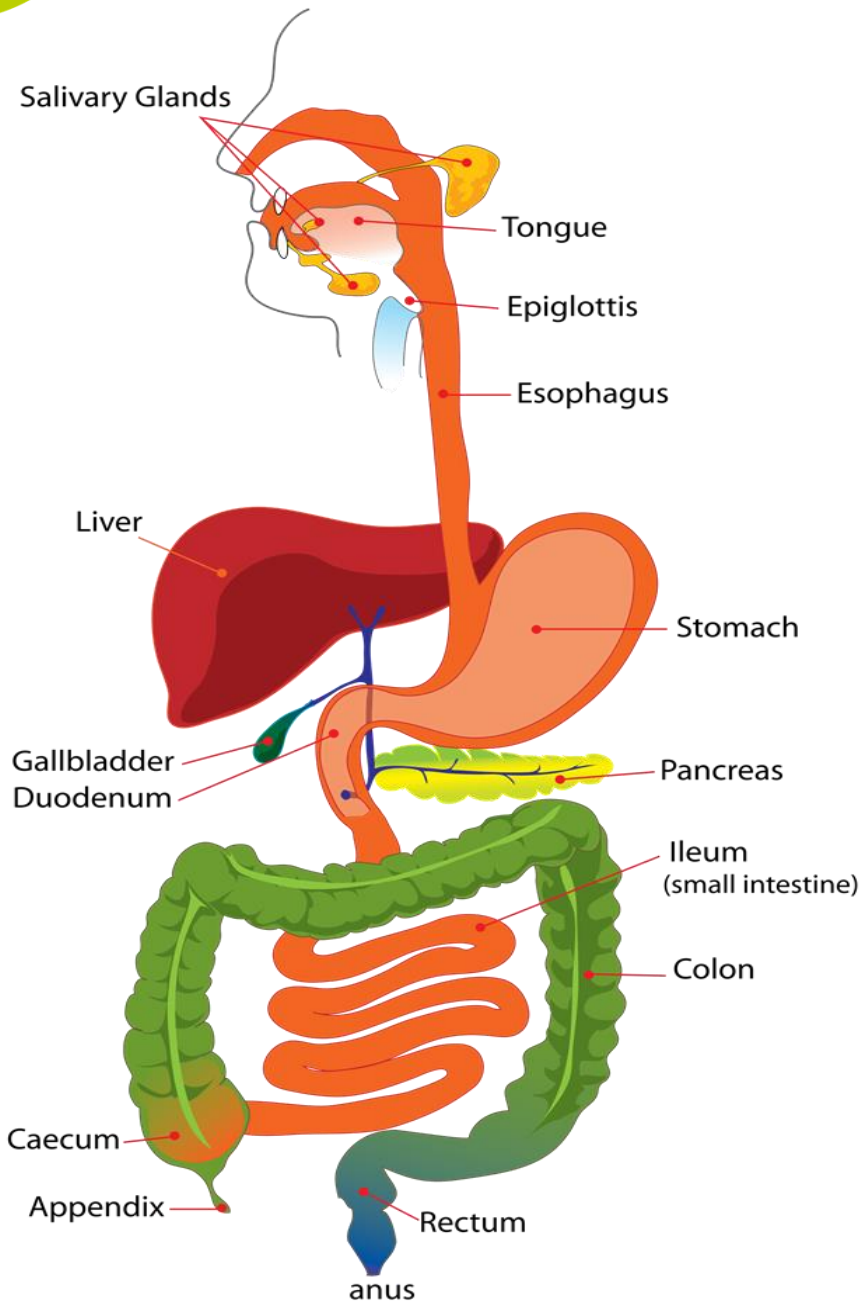

THIS FACTSHEET IS ABOUT RUMINATION SYNDROME

Rumination syndrome is the chronic (long-term) repetitive, effortless regurgitation of recently swallowed food back into the mouth. The regurgitated food may then either be rechewed and swallowed or spat out.

The exact reason why some people can ruminate their food is not fully understood. Rumination occurs following an unintentional contraction of the abdominal muscles shortly after eating. This abruptly increases the pressure in the stomach to such an extent that it forces the valve in the lower oesophagus (gullet) to open allowing the food to travel back into the mouth.

Rumination syndrome can often be mistaken for reflux (but regurgitated food is not generally acidic), unexplained vomiting, bulimia, anorexia nervosa and gastroparesis.

It has been reported 1 in 125 people in the general population experience rumination syndrome, but the actual number is likely to be underestimated as it is an under recognised condition. It occurs more commonly in people who have been diagnosed with fibromyalgia, where 1 in 10 people may be diagnosed plus eating disorders, where 1 in 10 up to 1 in 20 can experience rumination syndrome. It used to be thought that rumination syndrome was more often experienced by people who have a background of developmental delay, however most people with rumination syndrome are of normal intellect. In children and adolescents without developmental difficulties it is more common in females than males. But in adults, it occurs equally in males and females of all ages.

Many people with rumination syndrome also have a diagnosis of anxiety and depression. But it is not known if the mental ill health diagnosis precedes the rumination syndrome or the rumination syndrome is the cause of anxiety or depression, as the symptoms and delay in recognition of the condition can negatively affect the persons quality of life.

CAUSES

WHAT ARE THE CAUSES OF RUMINATION SYNDROME?

The cause is currently unknown. Some people report symptoms following an acute illness, surgeries, stress or a major life event. It is suggested that psychological symptoms may cause rumination syndrome, but also make it worse. However, it is noted that whilst 1 in 2 people have a mental health diagnosis, the other half do not.

IS THIS RUMINATION SYNDROME?

If food is getting stuck in your oesophagus and it is painful, and you are losing weight please contact your doctor as pain is a ‘red flag’ symptom that needs your doctor to investigate, particularly in people over 55 years of age. Rumination syndrome is not generally painful.

SYMPTOMS

WHAT ARE THE USUAL SYMPTOMS?

People can often experience symptoms for some time before diagnosis. Rumination syndrome is not usually accompanied by nausea, it is painless and most people with rumination syndrome do not experience any heartburn or retching. It can be preceded with a feeling you are about to burp.

Regurgitation of food typically occurs within minutes after a meal but can continue for 1-2 hours at meals with both liquids and solid food. People sometimes describe their symptoms as vomiting. But It is **not** the same as vomiting. Vomiting is a forceful evacuation of stomach contents, with retching, that travels fast and cannot be held up in the mouth.

The food is not sour, bitter, or acidic in taste, as it is undigested food. It is often described as similar in taste to the food that has just been swallowed and may even be pleasant. The person makes a conscious decision whether to swallow or expel the food bolus. For most people regurgitation stops when the food develops an acidic taste, and rumination does not occur when the person is asleep. Ruminating serves to relieve the persons symptoms, and then becomes a subconsciously learned behaviour.

HOW CAN RUMINATION SYNDROME AFFECT YOU?

Other effects of regular rumination include dental damage, bad breath, weight loss and electrolyte imbalance. Rumination disorder can also have an impact on a person's quality of life, though not all people experience the same level of impairment. There is very little research on the lives of people with rumination syndrome but having to manage the ruminating can lead to people with the condition avoiding social situations and sports and it may cause people to avoid relationships, work or school.

HOW IS RUMINATION SYNDROME DIAGNOSED?

As symptoms of rumination syndrome are like other gastrointestinal conditions it is important that other causes are ruled out before diagnosis. Most people undergo an oesophagogastroduodenoscopy (OGD – a camera attached a wire that is swallowed and used to look inside the stomach) or a barium oesophagography to rule out mucosal or obstructive causes for symptoms, before being diagnosed with rumination syndrome.

Because rumination syndrome is a disorder of digestive function, there are no blood tests that can be used to diagnose it. Although a diagnosis can be supported by using a high-resolution impedance manometry (HRiM) and this test might be used to distinguish between rumination syndrome and reflux.

The main way of diagnosing rumination syndrome is by taking a detailed clinical history and screening for the well recognised symptoms. An organisation called ROME who develop diagnostic criteria for functional gastrointestinal disorders recommend the following must be met for a positive diagnosis of rumination syndrome. The doctor will ask you detailed questions about your symptoms and consider the following factors (ROME IV).

For rumination to be diagnosed all of the following must be fulfilled for the last 3 months, with symptom onset at least 6 months prior to diagnosis:

- Persistent or recurrent regurgitation of recently ingested food into the mouth with subsequent spitting or re-mastication and swallowing.
- Regurgitation is not preceded by retching.
- No evidence of an inflammatory (inflammation), anatomic (structural abnormality),
- metabolic, or neoplastic (cancer) process that explains the subject's symptoms.

The presence of other gastrointestinal symptoms not included in the Rome IV classification of rumination, such as nausea, heartburn, abdominal discomfort, bloating, diarrhoea, belching, and abdominal pain, does not exclude the possibility that the doctor will diagnose rumination syndrome.

Psychologists may use different classification for diagnosis.

TREATMENT

WHAT TREATMENT IS AVAILABLE FOR RUMINATION SYNDROME?

Treatment options available range from breathing exercises, which have the most evidence-base, and to a lesser extent medication.

Behaviour modification therapy:

As Rumination Syndrome is an acquired behavioural disorder, behavioural modification to correct it is the main type of treatment for this condition with the most evidence-base in clinical trials. Diaphragmatic breathing is a technique taught to the patient which is thought to break the habit and retrain the muscles to compete with the urge to ruminate. If practiced correctly, it is not possible to tense the abdominal muscles to increase the gastric pressure during this breathing exercise, and therefore during the breathing exercises it is not physically possible to Ruminate. For this to be effective in treating this condition it essential to continue these exercises at home. The exercises need to be practiced in the middle, at the end of all meals, and following every episode of rumination, until the pattern of breathing becomes natural for the patient after all intake suppressing the urge to regurgitate. Sometimes, where available, a technique called biofeedback can be used to teach the diaphragmatic breathing exercises. During biofeedback, the person with Rumination can be taught how to suppress the rise in gastric pressure after eating, and this visual demonstration can be very useful.

Medications:

Medications have limited role in the treatment of Rumination Syndrome.

Proton Pump Inhibitors (PPIs). Some patients are offered PPIs, usually used to treat acid reflux disease. There is little evidence this is an effective treatment.

Baclofen. This medication has been shown to reduce the relaxations of the lower gullet which occur during regurgitation. It reduces reflux events and has been used to treat GERD. It has been shown in a clinical study to reduce the flow/ regurgitation events in people with

Rumination. However, the medication does have side effects, and can cause drowsiness in some people, so its use it usually reserved for people that do not improve with diaphragmatic breathing.

Psychosocial interventions: As rumination can begin with a stressful life event or occur alongside a mental illness, some patients have been offered mindfulness exercises to destress. There is not much evidence of this being successful, but more research is needed. Supportive psychotherapy together with a drug has also been looked at; 38% of patients showed improvement, so not as effective as baclofen.

Surgery: A Nissen Fundoplication surgery that adjusts abdominal pressure through wrapping the top part of the stomach around the oesophagus is one surgical treatment that has been tried, it is however rarely used and not supported by robust evidence. It is currently not recommended that people with rumination syndrome have surgery without structural abnormalities being present, for example a hiatus hernia. There have also been other studies that report following fundoplication, some people continued to ruminate. The role for this surgery remains therefore uncertain and doctors currently recommend surgery should be avoided a treatment for rumination syndrome.

DOES RUMINATION SYNDROME NEED TO BE MONITORED?

In the early stages after diagnosis, it is important that nutrition, oral intake and weight is monitored as well as hydration status. If there is evidence of weight loss or malnutrition, dehydration, support from a dietetics team and supplementation may be required until the condition is effectively treated.

SUPPORT

WHAT TO ASK YOUR DOCTOR WHEN YOU SEE THEM.

- ARE MY SYMPTOMS CAUSED BY RUMINATION SYNDROME?
- CAN YOU REFER ME FOR DIAPHRAGMATIC BREATHING?
- WOULD IT BE BENEFICIAL FOR ME TO BE PRESCRIBED BACLOPHEN?
- COULD YOU REFER ME FOR PSYCHOLOGICAL THERAPY TO HELP ME COPE WITH MY SYMPTOMS?

Best practice guidelines have been developed by Halland (2018)

Best Practice Advice 1: doctors strongly should consider rumination syndrome in patients who report consistent postprandial regurgitation. Such patients often are labelled as having refractory gastroesophageal reflux or vomiting.

Best Practice Advice 2: Presence of nocturnal regurgitation, dysphagia, nausea, or symptoms occurring in the absence of meals does not exclude rumination syndrome, but makes the presence of it less likely.

Best Practice Advice 3: Clinicians should diagnose rumination syndrome primarily on the basis of Rome IV criteria after an appropriate medical work-up.

Best Practice Advice 4: Diaphragmatic breathing with or without biofeedback is the first-line therapy in all cases of rumination syndrome.

Best Practice Advice 5: Instructions for effective diaphragmatic breathing can be given by speech therapists, psychologists, gastroenterologists, and other health practitioners familiar with the technique.

Best Practice Advice 6: Objective testing for rumination syndrome with postprandial high-resolution oesophageal impedance manometry can be used to support the diagnosis, but expertise and lack of standardized protocols are current limitations.

Best Practice Advice 7: Baclofen, at a dose of 10 mg 3 times daily, is a reasonable next step in refractory patients.

It is also recommended to treat any psychological issues if present.

The British Society of Gastroenterology have produced some information about rumination syndrome and you can access it via a link here How to recognise and manage rumination syndrome | The British Society of Gastroenterology (bsg.org.uk)

For further information, visit gutscharity.org.uk

1(Halland, 2018)

2 (Pauwels, et al, 2018)