

Pyloric Obstruction in a Child - An Uncommon Cause

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Abstract: A number of side effects from chewing and swallowing chewing gum have been described including possible tooth damage and temporomandibular joint disorders, but the most serious must be gastrointestinal obstruction with chewing gum being the base on which other ingredients are added to form a bezoar.

We describe the case of 3 years old boy who developed a large bezoar from chewing gum ingestion which caused obstruction. We also describe another child whose symptoms were probably from chewing gum ingestion.

1. CASE1

A nearly 4year old Syrian boy was admitted with a history of repeated vomiting which persisted in hospital for another day, In the past he had many admissions to other hospitals with prolonged vomiting episodes and he had abdominal ultrasounds which were always normal on some of the occasions.

A barium meal was performed on our patient (figures 1 and 2). It showed a large bezoar filling the whole stomach; a mottled mass not attached to the wall. (Some barium has passed through the pyloric canal so the obstruction is not total)



Figure1. Barium in the oesophagus and over the top of the bezoar.



Figure2. Bezoar filling the stomach. A little barium passing into the duodenum

The viscous mass had to be surgically removed through a minor incision and gastric wall port. It consisted of chewing gum and fragments of food. Since then, more than 1 year ago, there have been no further problems.

We strongly suspect that chewing gum was responsible for gastrointestinal disturbances in a second child, a 5 ½ year old Syrian girl, who was admitted after vomiting 5 times and continued to vomit intermittently for 2 days while having IV Fluids and very little oral intake.

We know she was a frequent chewing gum taker, and had been taking chewing gum shortly before admission, but unlike the first child we have no proof that this was the cause.

2. DISCUSSION

Deborah Gold¹ in her interview reported in the BMJ answered the question “What is your pet hate?” with “People chewing gum.” She may have been thinking about the social and environmental aspects, but she would have good medical reasons to dislike it, too, at least in children.

A number of side effects have been described from taking chewing gum including possible tooth damage and temporomandibular joint disorders⁵, but the most serious must be gastrointestinal obstruction with chewing gum being the base on which other ingredients are added.

This has been described before – bezoars both in the stomach and in the rectum, the latter causing constipation⁴, but does not seem to be generally known. It is probably under diagnosed as a cause of gastrointestinal dysfunction. It is likely that the previous episodes of vomiting in our patient were associated with chewing gum ingestion. We note that the bezoar was not seen on ultrasound scanning although in the literature scanning is recommended.

I have no figures, but in this country chewing gum is popular. During examination of the throat in my out patient consultations children often have chewing gum in their mouths, In shops instead of giving small change, shop keepers often give chewing gum!

3. CONCLUSION

Young children, who are likely to swallow chewing gum, should not take chewing gum.

Take home messages

1. Chewing gum is bad for young children
2. Consider chewing gum ingestion in a young child with frequent episodes of vomiting and / or a vomiting episode that lasts a long time
3. If you suspect chewing gum as the culprit abdominal ultrasound scans may not help.

The poet, Hilaire Belloc, wrote one poem in *Cautionary Tales for Children* that starts:

The chief defect of Henry King
Was eating little bits of string
At last he swallowed some that tied
Itself in ugly knots inside.

A similar poem could be written on chewing gum. I suggest starting something like:

The chief defect of Peter Plum
Was eating little bits of gum
At last he ate some that stuck
In the lumen of the gut!

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