

The PATÉ trial: prevention of appendicitis using Trident exclusively

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It is common knowledge among Canadian children that chewing gum, whether inadvertently or purposefully swallowed, remains in the stomach for 7 years. This notion is not supported in the literature, however, and our experience with esophagoduodenoscopy has failed to detect any example of gum located in a patient's stomach.

Members of our journal club, however, were able to offer the anecdotal observation that, in their many hours of faithfully holding retractors while observing appendectomies, they had never seen a piece of gum in a patient's appendix. A review of the world chewing-gum literature, cross-referenced to "appendicitis" in MEDLINE, produced only a single case report of gum being discovered during an appendectomy, but on further investigation it turned out that the clinical clerk had accidentally sneezed out his gum.

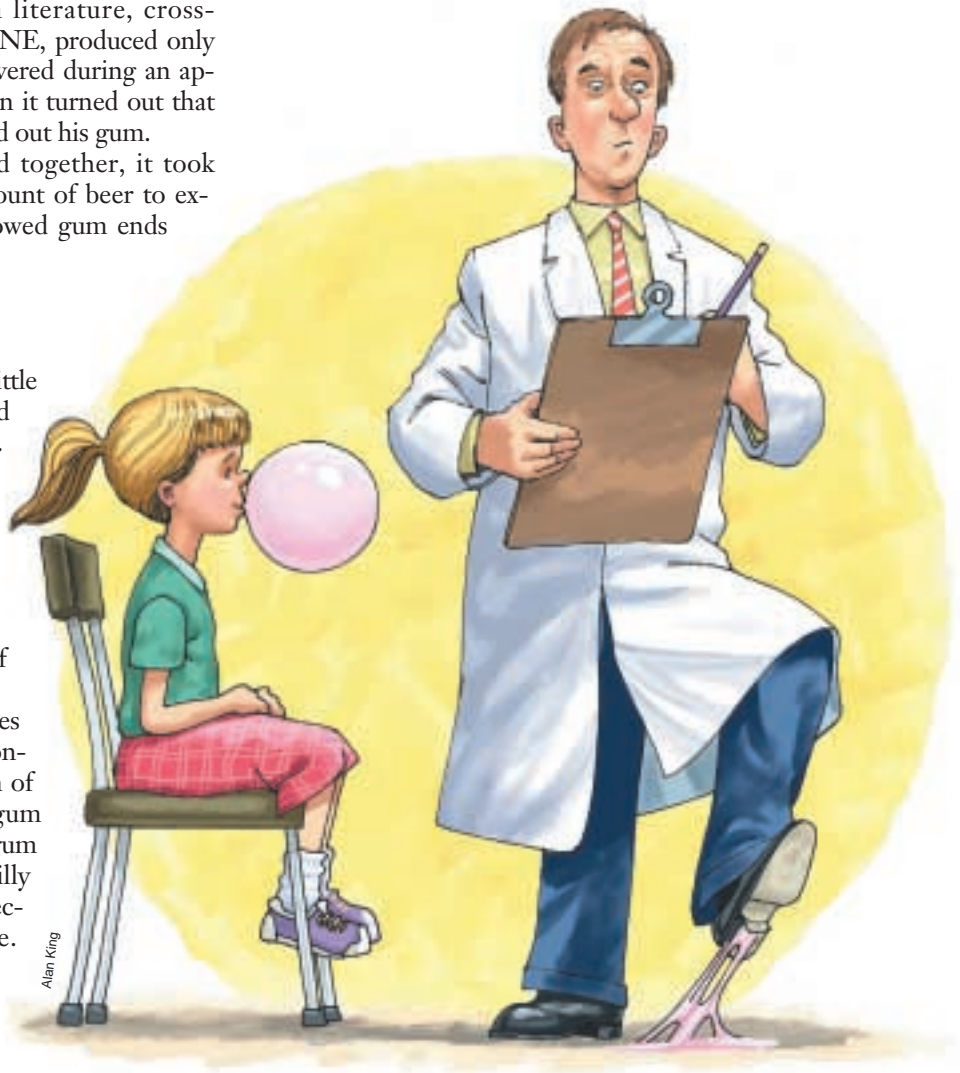
Once these 2 facts were considered together, it took only a small mental leap and a fair amount of beer to explain both the mystery of where swallowed gum ends up and the pathogenesis of appendicitis.

The Bubblependix theory

The vermiform appendix is a weeny little piece of the gastrointestinal tract located at the proximal end of the large bowel. For the most part, it just hangs there and doesn't do anything useful. Occasionally, it becomes infected and forms an abscess, which produces the condition known as appendicitis. It is thought that the infection is often caused by a fecolith, or "pooh-ball," lodged in the lumen of the appendix.

Clearly, swallowed chewing gum does not stay in the stomach. Initially, we considered the idea that the actual function of the appendix was to store swallowed gum for the required 7 years. But, because gum has never (except for that one time — silly clerk) been seen at the time of appendectomy, this seemed not to be the case. Then, in a sudden reversal of thinking that set the room ablaze in the light of a "Eureka!" of Archimedean proportions and caused us to run out into

the streets dancing with joy in the manner of Fleming, Banting or Astaire, we realized that no one (except the clerk) has ever seen gum during an appendectomy because chewing gum in the appendix *prevents* appendicitis. The appendix is where the gum ends up for those 7 years, and due to an as-yet-undiscovered (and possibly magical) property, the gum prevents the abscess from forming. No one has ever found gum at appendectomy, because for the 7 years the gum is in the appendix there can be no appendicitis.



Prevention of appendicitis

The PATÉ trial

This trial was designed to prove that swallowed chewing gum prevents appendicitis. Trident gum was chosen, because it created a good acronym for the title. There has been no corporate sponsorship of this trial as of yet, but we would be happy to get some. We tried to get ethics approval, but the institutional review board members refused to reply to our submission.

Methods

Subjects were assigned to 1 of 2 groups based on the phase of the moon. In the experimental group, subjects were given a piece of Trident gum to swallow. Flavour was their choice, as long as it was cherry. Subjects were allowed to chew the gum before swallowing, because have you ever tried to swallow a rectangle? This was done once per day for 7 consecutive days.

The control group was given a piece of cooked carrot of the same shape and size as the gum to swallow once per day for 7 days. We tried to blind the subjects to study group assignment, but all except one (a General Surgery resident) could tell the cherry-flavoured gum apart from the carrot. Carrots were chosen for the control group, because a previous pilot study by one of the authors (A.J.E.) demonstrated that carrots pass surprisingly intact through the gastrointestinal tract and, therefore, do not get stuck in the appendix.

We contacted the subjects 7 years later to determine the incidence of appendicitis during the protective period of the swallowed gum.

Extensive statistical analysis was performed using an Etch A Sketch.

Results

Of the 14 patients enrolled in the study, miraculously all were available for follow-up 7 years later. Baseline and outcome data are summarized in Table 1. We did calculate many more impressive statistics, such as odds ratios and confidence intervals, and made extensive use of the Yates correction for continuity, but unfortunately all of the results were lost when we dropped the Etch A Sketch.

Interpretation

The results of the PATÉ trial were astoundingly supportive of our Bubblependix theory. The question of whether

Table 1: Baseline characteristics of PATÉ trial participants and outcome data

Characteristic and outcome	Gum swallowers	Carrot swallowers
No.	7	7
Mean age (and SD), yr	21.7 (7.1)	22.0 (14.2)
Brown hair	4	6
Incidence of appendicitis*	0	7

Note: PATÉ = prevention of appendicitis using Trident exclusively, SD = standard deviation.
* $p = 10^{-}$.

swallowed Trident prevents appendicitis has been answered for all time. The only remaining details to be elucidated are whether this effect is specific to Trident or whether it represents a sugarless-gum class effect, and indeed whether sweetened gum has the same property.

Limitations

We do not recommend the use of an Etch A Sketch for your statistical analysis, because they're really slippery if you spill your beer on them.

Conclusion

In this era of cost containment in health care, strategies for preventing illnesses with significant morbidity are most welcome. And when that same strategy comes in a delightful cherry flavour, all the better. So back to the original question: Does swallowing Trident gum prevent appendicitis? Based on this trial, the answer is clear. The proof is in the PATÉ.

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Contributors: Drs. Eisen and Cooper contributed to the conception of the article, wrote the article and reviewed the final draft. Ms. Eisen performed the pilot study concerning carrots and gastrointestinal tract transition, and she chewed over the final draft.

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