Infant Regurgitation

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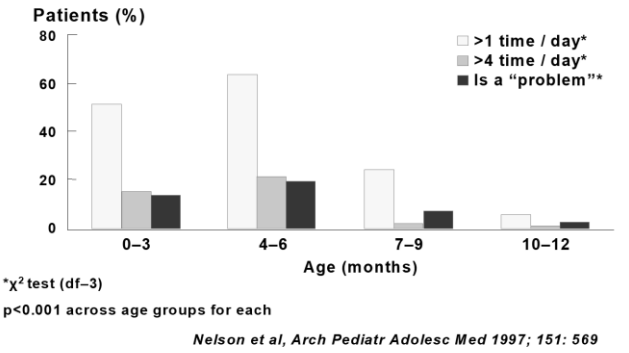
Regurgitation is when the stomach contents flow back up the esophagus and into the mouth. It is a type of gastroesophageal reflux (GER) – the other type being occult or silent reflux. Silent reflux is when the contents of the stomach only go part way up the esophagus. Infants tend to have more regurgitation episodes than silent episodes of GER as compared to adults.

Is Infant Regurgitation normal? What is the natural history?

Figure 1



Regurgitation is common during the first year of life. As shown in Figure 1, the frequency of regurgitation peaks at about 4 months of age with most infants outgrowing their regurgitation by 7 months of age and almost all by one year. Although regurgitation occurs commonly, parents frequently perceive it as a problem, particularly if the infant is spitting-up frequently or with large amounts, or the child is irritable.

Previously, infant regurgitation was viewed as a self-limited condition – typically resolving on its own over time. However there is now emerging evidence that for some infants it may develop into other problems. Infants who regurgitate beyond 6 months may be at risk for developing feeding problems as well as other symptoms of gastroesophageal reflux such as vomiting, nausea, abdominal pain, heartburn, or acid regurgitation.

Despite regurgitation being frequently identified by parents as a problem only 2% of infants had their formula thickened, 8% had their formula changed, and .2% were tried on medication – all common treatments for regurgitation.

When should I worry if my infant regurgitates?

Signs that something more serious may be going on would include your baby having problems gaining weight, crying excessively, problems feeding, problems breathing, or throwing up blood or bile. If your child is having any of these problems you should consult your physician.

Do infants with frequent regurgitation require testing?

Most infants with regurgitation without any other problems do not require any testing. However, an upper gastrointestinal series (x-ray examination of the esophagus, stomach, and small intestine) may be useful in problematic cases to evaluate for anatomic abnormalities (e.g., pyloric stenosis, malrotation, annular pancreas). An upper GI series is not a test for gastroesophageal reflux since clinically it is already known that the contents of the stomach go up into the mouth.

What treatment is available for infants who regurgitate?

Many infants with regurgitation need no or limited treatment. The extent in which to pursue treatment depends on how the infant is doing. No treatment is perfect and parents need to be counseled that the goal is improvement, not elimination of the problem. Following are common treatments for regurgitation:

Positioning – Keeping infants who regurgitate upright after meals often helps, along with elevating the head and diaper changing table to 30 degrees so that they never lay flat. Positioning infants on their stomachs will decrease the amount of gastroesophageal reflux but is not recommended during sleep because of the link between this position and sudden infant death syndrome. Positioning in car seats causes regurgitation to increase.

To help minimize gastric pressure which can cause regurgitation, it is recommended to burp the infant as needed, keep diapers loose, and avoid tight elastic waistbands.

Feeding – Most infants will regurgitate breast milk less than formulas, so it is not recommended to stop breast-feeding.

Most infants with regurgitation will decrease the amount they regurgitate as well as have less irritability on a thickened formula. It also increases the caloric density of the formula, which can be particularly useful in infants with poor weight gain. We usually recommend that parents start at one teaspoon per ounce and increase to one tablespoon per ounce as needed. If the mother is breast-feeding she can try pumping and adding rice cereal to the breast milk. Often the bottle nipple needs to be enlarged to accommodate the thicker formula.

It is important that infants with regurgitation are not overfed. Even though the child seems to throw up the entire content of his or her stomach, wait until the next feeding to try again. Usually the amount of regurgitated material is not as much as it may appear because the stomach produces a fair amount of fluid. Allowing the stomach to empty allows the next feeding to be better tolerated.

Some infants with regurgitation may have a milk and/or soy protein allergy. Therefore a two-week trial of a hypoallergenic formula may be indicated in infants who are having problematic regurgitation.

Treat constipation – Infants who regurgitate may be prone to constipation, and it is important to work with a physician to treat the constipation since the constipation can make the regurgitation worse.

Medications – Infants who regurgitate who are also fussy and not helped by the above measures may benefit from a trial of acid suppressive therapy, as directed by a physician.

Summary

Complaints of regurgitation are common during the first year of life, peaking at 4 months of age. Many infants "outgrow" overt GER by 7 months and most by 1 year. Parents perceive symptoms as a problem more often than doctors recommend medical intervention. Understanding the condition helps to relieve concerns that parents might have. Some infants who continue to regurgitate beyond the age of 6 months may be at risk for other problems. Working together with the child's physician should provide the support necessary to help manage symptoms.

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