Intussusception

WHAT IS INTUSSUSCEPTION?

Intussusception is a form of intestinal obstruction most commonly seen in infants and toddlers, whereby a segment of the small bowel ?telescopes? into another portion of the small, or the large intestine. As the intestines contract rhythmically, trying to push their content further down, they also push the intussuscepted loop of bowel further into the large intestine, making the blockage worse. These contractions of the intestines cause the child to experience very severe, cramp-like abdominal pain. When the bowel relaxes, in between contractions, the pain goes away, and the child will typically be very restful, and sometimes even sleepy or lethargic.

HOW DO I KNOW THAT MY CHILD HAS INTUSSUSCEPTION?

Abdominal pain in young children can be due to a large number of conditions, but some features are typical of intussusception. In addition to the above-mentioned cramp-like, episodic type of pain, whereby the child often draws up his legs, there may be other signs of intestinal obstruction: the abdomen may become distended with gas, as the air that is normally swallowed cannot find its way past the blockage; As fluid backs up as well, the child may start to vomit, not only food, but greenish bile as well. Diarrhea, which is a common finding in viral infections (intestinal flu), is usually not present, but stools may be blood-tinged and contain clear mucus. As noted above, the episodes of severe pain often alternate with long periods of sleepiness and lethargy, a finding that is typical of intussusception. If some or all of these signs and symptoms are present, intussusception should be suspectded and the child should be seen by a physician.

WHY DOES INTUSSUSCEPTION HAPPEN?

Although the condition is well known to pediatricians and pediatric surgeons, and its treatment is very effective (see below), the cause of most cases of intussusception is still unknown. It almost always occurs in children between the ages of 4 months and 2 years (sometimes a little older, rarely younger) and will not happen later in life. While a lesion, tumor or polyp inside the small intestine can act as a ?lead point? and cause an intussusception (the most common type of such lesions is a Meckel?s diverticulum), this mechanism is only responsible for 10% of all cases. In all others, the condition is so-called ?idiopathic,? meaning that the true cause of it is not (yet) known. Much research has been done to discover the cause of idiopathic intussusception, and several theories exist, but none has proved to be satisfactory.

HOW IS INTUSSUSCEPTION TREATED?

Intussusception is a true intestinal obstruction, and requires immediate attention. If left untreated, it will progress to bowel distention, damage, necrosis and rupture, followed by peritonitis (inflammation of the abdominal cavity), severe infection and shock. However, this is one of the few forms of obstruction that do not always require an operation. In about 70% of the cases, the intussusception can be pushed back by running liquid (typically, barium) or air under tightly controlled pressure, while the child?s abdomen and intestines are being monitored by X-rays. Performing a barium enema in a child suspected of having intussusception therefore helps to establish the diagnosis (the blockage can be seen on X-ray) and treat the condition (ultrasound will sometimes be used to diagnose (or rule out) intussusception, but a barium (or air) enema will still be necessary to treat it).

The longer the intussusception has been present, the more difficult reduction by barium or air enema will be. Sometimes, the child will be so sick that the surgeon or the radiologist will judge this technique to be too dangerous. Even if a reduction under X-ray monitoring can be attempted, it may not succeed in relieving the obstruction. In both these situations (which occur 20 to 30% of the time), the obstruction will have to be corrected surgically.

WHAT HAPPENS IF MY CHILD NEEDS SURGERY?

If X-ray reduction is too dangerous or unsuccessful, your child will need to be operated on emergently to relieve the intestinal obstruction. As for the X-ray technique, your child will first have to be hydrated (between the vomiting, the poor appetite and the obstruction itself, your child will have become moderately to severely dehydrated). This will be done intravenously.
Your child will then undergo an operation under general anesthesia. An incision will typically be made in the child?s right lower abdomen, not unlike what is done for appendicitis. The obstruction will be found and corrected, by gently separating the telescoped loops of bowel. Rarely, a portion of the bowel will be so diseased that it is safer to remove it.

WHAT HAPPENS AFTERWARDS?

Once the intussusception is reduced (with X-ray or surgically), your child will gradually recover. He will be kept without food initially, to allow his intestines to rest. Depending on whether or not your child required an operation, feeding will be started within hours or the following day(s). As soon as a regular diet is tolerated, your child will be discharged home.

Intussusception can sometimes occur again (approximately 10% of the time); not uncommonly, this will happen within the first day or two after the initial attack (often while your child is still in the hospital). If X-ray reduction was successful the first time, it is very likely that the same treatment will be successful again. Ultimately, your child will outgrow the risk of intussusception, and there should be no lasting effects.

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