BOTULISM

Botulism is a rare but serious paralytic illness cause by a nerve toxin – BOTULINUM TOXIN –that is produced by the bacterium Clostridium botulinum. There are three main kinds of botulism: food borne, wound, and intestinal (infant). All forms of botulism can be fatal and are considered medical emergencies.

TRANSMISSION

Eating foods that contain the botulism toxin causes food borne botulism. Most poisonings are due to home canned vegetables and fruit. Wound botulism is caused by toxin produced from a wound infected with Clostridium botulinum. Intestinal (infant) botulism is caused by consuming the spores of the botulinum bacteria, which then grow in the intestines and release the toxin. Possible sources of spores include certain foods, especially honey, and dust.

SYMPTOMS

The classic symptoms of botulism include double vision, blurred visions, drooping eyelids, slurred speech, difficulty swallowing, dry mouth, and muscle weakness. Infants born with botulism appear lethargic, feed poorly, are constipated, and have a weak cry and poor muscle tone. These are all symptoms of muscle paralysis caused by bacterial toxin. If untreated, these symptoms may progress to causes paralysis of the arms, legs, trunk, and respiratory muscles. In food borne botulism, symptoms usually begin 18-36 hours after eating a contaminated food, but they can occur as early as 6 hours or as late as 10 days.

WHO IS AT RISK?

Persons who practice home canning should follow strict hygienic procedures to reduce contamination of foods. An average of 110 cases of botulism are reported each year within the United States. Of these, approximately 25% are food borne, 72% are infants and the rest are wound botulism.

TREATMENT

The respiratory failure and paralysis that occur with severe botulism may require a patient to be on a breathing machine (ventilator) for weeks, plus intensive medical and nursing care. If diagnosed early, food borne and wound botulism can be treated with an antitoxin that blocks the action of toxin circulating in the blood. Physicians may try to remove contaminated food still in the gut by inducing vomiting or by using enemas. Wounds should be treated, usually surgically, to remove the source of the toxin-producing bacteria.

PREVENTION

Food borne botulism has often been from home-canned foods with low acid content, such as asparagus, green beans, and corn. Oils infused with garlic or herbs should be refrigerated. Potatoes that have been baked while wrapped in aluminum foil should be kept hot until served or refrigerated. Because high temperatures destroy the botulinum toxin, persons who eat home-canned foods should consider boiling the food for 10 minutes before eating to ensure safety. Instructions on safe home canning can be obtained from county extension services or from the US Department of Agriculture. Children should not be fed honey because they contain the spores that have been a source of infection for infants less than 12 months old. Wound botulism can be prevented by promptly seeking medical care for infected wounds and by not using injectable street drugs.