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Researchers to test stem cells to treat Crohn's

BY DELTHIA RICKS

Stem cells may force Crohn's disease into retreat, say Long Island medical investigators who are embarking on a pioneering analysis that targets patients who've failed other therapies.

Cases of Crohn's disease have skyrocketed since World War II, jumping tenfold in the United States and raising questions about the disease's genetics and demography. It is one of two disorders - the other is ulcerative colitis - that are known as inflammatory bowel diseases. Before the 20th century there was no recorded evidence of either.

Dr. Robert Richards, director of clinical research in the gastroenterology division at Stony Brook University Medical Center, is embarking on a clinical study involving the infusion of adult stem cells, which he and other researchers theorize may force the condition into retreat. His analysis is part of a multicenter trial nationwide, focusing on patients with moderate to severe forms of the disease.

Patients had "basically tried all of the medications that are out there for Crohn's and have not done well or have become intolerant to [standard] treatment," Richards said.

The stem cells are drawn from the bone marrow of adult donors and processed into an infusible preparation. Because stem cells are essentially blank slates capable of morphing into any kind of cell, researchers believe that when infused into the intestinal tract, they will help remodel cells there and relieve symptoms.

Inflammation caused by Crohn's disease can occur anywhere along the tract from the mouth to the anus. Symptoms may wax and wane but the inflammation can lead to scarring, which dramatically disrupts intestinal function. Some people are racked with painful diarrhea tinged with blood.

Current therapies include anti-inflammatory drugs and antibiotics. Additional treatments include those that quell the activity of certain parts of the immune system. Among the theories explaining the cause of Crohn's is that it is triggered by turncoat cells, so that the body is at war with itself.

Two weeks ago the Food and Drug Administration announced an investigation into three drugs that tamp down the immune system, following 30 reports of children and young adults who developed cancer.

Edda Ramsdell, executive director of Long Island's division of the Crohn's and Colitis Foundation of America, said the stem cell research could provide a new avenue. "This is exciting but there probably isn't a single answer. People react differently to treatments," she said.

Dr. R. Balfour Sartor of the University of North Carolina, scientific adviser to the foundation, said it's always important to explore new therapies, including stem cells. "I am frustrated by the lack of current medical and even surgical cures of this disease," said Sartor, who will speak next month on Long Island about his new dietary theory.

Richards' stem cell study will run for a year. Patients will range between 18 and 70.

CROHN'S DISEASE EXPLAINED

Crohn's tends to run in families, and susceptibility genes have been identified. People of Ashkenazi Jewish descent have a higher incidence compared with other ethnic groups. The disorder is not especially prevalent among Sephardic Jews.

First described in 1930 by Dr. Burrill Crohn of Mt. Sinai Hospital in Manhattan. Before the 20th century there was no recorded evidence of Crohn's or ulcerative colitis, both inflammatory bowel diseases. Generally, colitis is viewed as serious, but not as devastating as Crohn's.

Crohn's is diagnosed more often in industrialized countries where sugar consumption is very high, and less so in underdeveloped countries, though scientists note an increase worldwide. Some scientists think excessive sugar consumption may affect the genetically susceptible to Crohn's by altering the balance of bacteria that inhabit the intestinal tract.

Long Island is disproportionately affected by people with Crohn's disease, based on genetics and demographics. The Crohn's and Colitis Foundation of America estimates 30,000 Long Islanders have Crohn's disease, or ulcerative colitis. Nationwide, more than 1 million people have an inflammatory bowel disease.