Novel bacterium linked to cord colitis syndrome

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(HealthDay)—A novel bacterium is associated with cord colitis syndrome, a complication of umbilical-cord hematopoietic stem-cell transplantation, according to a study published in the Aug. 8 issue of the *New England Journal of Medicine*.

To examine whether cord colitis syndrome has an infectious origin, Ami S. Bhatt, M.D., Ph.D., from the Dana-Farber Cancer Institute in Boston, and colleagues performed shotgun DNA sequencing on four endoscopic colon-biopsy specimens from two patients with cord colitis. Human and known microbial sequences were removed and the residual sequences were assembled into a bacterial draft genome.

The researchers found 2.5 million sequencing reads that did not match known organisms and were then assembled into a 7.65-Mb draft genome. The genome was highly homologous to bacteria in the bradyrhizobium genus and named *Bradyrhizobium enterica*. DNA from *B. enterica* was present in biopsies from three additional patients with cord colitis but absent from samples from healthy controls and patients with colon cancer or graft-versus-host disease.

"Although we have not shown that *B. enterica* is the cause of cord colitis, we have demonstrated the usefulness of sequencing-based technologies for the unbiased identification of previously undiscovered candidate human pathogens," Bhatt and colleagues conclude.

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