Study of People With Metastatic Gastrointestinal Epithelial Cancer Administering Tumor-Infiltrating Lymphocytes in Which the Gene Encoding CISH Was Inactivated Using the CRISPR/Cas9 System

Background:

The gene CISH can weaken immune cells called lymphocytes. It is found in all cells of the body but it most negatively impacts lymphocytes. This study may help people with certain cancers.Lymphocyte cells will be taken from their tumors, the CISH gene will be removed from those cells, then the cells will be returned to the person. Researchers hope this process will help the cells work better and fight the tumors.

Objective:

To see if cells with the CISH gene removed are safe and shrink metastatic gastrointestinal epithelial tumors.

Eligibility:

People 18 70 years old with metastatic gastrointestinal epithelial cancer

Design:

Participants will be screened with physical exam, scans, and heart, lung, blood, and urine tests.

Participants will have cells collected in another protocol. They must tell their doctor of any antibiotic allergy.

The cells will be changed in a lab. Participants will stop therapy 4 6 weeks before getting the cells back.

Participants will have leukapheresis. Blood is sent by a needle in one arm into a machine that takes out the white blood cells. The blood is returned through a needle in the other arm.

Participants will have an IV catheter inserted in their upper chest to receive medicines and the cells.

Participants will stay in the hospital and:

- Have chemotherapy for 1 week
- Get the cells for about a half hour to a little over an hour
- Get a cell growth medicine about every 8 hours for up to 12 doses
- Get medicines to boost blood cells and fight side effects
- Recover for 1 3 weeks.

Participants will have 2 follow-up visits within 12 weeks of treatment, then a couple visits each year. They will repeat screening tests.