BARRETT ESOPHAGUS

Blood group linked to risk of cancer in patients with Barrett esophagus

“Patients with Barrett esophagus who are blood group type O and Rhesus D (RhD) negative are at particular risk of disease progression to esophageal cancer, and perhaps should be under increased surveillance,” says Christine Caygill from the Royal Free Hospital, UK, corresponding author of a recent study on the topic.

There is a long history of studying the association between blood groups and disease, the rationale being that an associated blood group may be a surrogate marker for an underlying genetic mutation.

Researchers from the UK and the US examined the blood group distribution pattern across the full spectrum of patients with GERD—ranging from those with nonerosive esophagitis to those with esophageal cancer—and compared it with that of healthy blood donors. The goal was to identify any association between blood group and the incidence of disease.

Individuals who were RhD positive had approximately the same pattern of blood group distribution as the healthy blood donating population, whereas those who were RhD negative (the minority) did not. The most striking finding was a significant correlation between progression from Barrett esophagus to esophageal cancer in patients with GERD who were blood type O and RhD negative.

The team believe that gas transport, specifically nitric oxide transport, which is the principle function of the RhD factor, may offer insight into a possible mechanism of disease for this association. The group hope to explore this theory in their future work.

Rachel Thompson

Original article Caygill, C. P. *et al.* Barrett's, blood groups and progression to oesophageal cancer: is nitric oxide the link? *Eur. J. Gastroenterol. Hepatol.* doi:10.1097/MEG.0b013e3283489dcf