Risk of premature death in patients with childhood immune-mediated inflammatory disease over three times greater

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Patients with a pediatric onset immune-mediated inflammatory disease (pIMID) have a significantly higher risk of premature death, according

to new research being presented today at the 54th Annual Meeting of the European Society for Pediatric Gastroenterology, Hepatology and Nutrition (ESPGHAN).

Whilst higher mortality was found in patients across all included pediatric onset immune-mediated inflammatory conditions compared to controls, pediatric autoimmune liver disease (pAILD) and pediatric vasculitis patients had the highest risk of mortality with a fourteen times (aHR* 14.3) and fifteen times (aHR 15.8) greater chance of death respectively.

For pAILD patients specifically, the study reveals for the very first time that the high death rate was driven by the risk of cancer, which was thirty times greater in pAILD patients. Coupled with the 6-times increased risk of death from cancer in pediatric onset inflammatory bowel disease (pIBD) patients, the researchers believe the findings show a definitive need to establish early cancer screening in pAILD and pIBD patients to prevent unnecessary premature deaths.

The study also revealed a significantly higher suicide risk (almost two-and-a-half times greater [aHR 2.4]) amongst pIMID patients compared to controls. Primarily driven by pIBD and juvenile idiopathic arthritis (JIA) patients, the median age of suicide was just 25 years.

These findings show a possible impact on the mental health of patients, spotlighting the true burden of these conditions. As the majority of suicides occurred in patients after transfer into adult care, an increased focus is warranted on systematic transitioning programs in pediatric departments. This focus must be continued into the period after the transfer of the patient to an adult department, due to this critical life period.

The survey also showed that being diagnosed with more than one IMID

appears to be a risk factor, with significantly higher mortality risk found in these patients (aHR 9.2). This is important as previous studies have found that patients diagnosed with one IMID are at an increased risk of subsequently being diagnosed with an additional IMID.

The Danish population-based study recorded data from 12,036 pIMID patients between 1980—2018, consisting of 5,671 (47%) pIBD, 396 (3%) pAILD, 6,018 (50%) JIA, and 300 (2%) individuals with pediatric onset vasculitis. Of these, 342 (3%) individuals were diagnosed with more than one pIMID.

Commenting on the findings, lead author, Dr. Mikkel Malham from the Department of Paediatrics and Adolescent Medicine at the Copenhagen University Hospital Hvidovre in Copenhagen, Denmark, stated: "This is the first study to report an increased mortality in pIMID. While for pIBD this risk is quite well known, for the rest of the included pIMIDs the presented risk estimates should raise considerable concern."

"The increased risk of dying from several different causes should warrant a multidisciplinary approach which includes caring for a child's mental health. It is of utmost importance that this multidisciplinary approach is continued into early adulthood, as this is when suicide typically occurs."

"Additionally, cancer screening in IMID patients diagnosed in childhood, particularly with IBD and AILD, should probably be initiated early to prevent premature death," adds Dr. Malham.

Referencing the higher mortality rate, particularly amongst pAILD patients, and the prominent role of suicide as a cause, Chair of the ESPGHAN Hepatology Committee, Professor Giuseppe Indolfi elaborates on the broader implications: "The clinical and therapeutic management of children and adolescents with autoimmune liver and

gastrointestinal diseases remains a significant challenge for pediatric hepatologists and gastroenterologists. This study reinforces that every effort should be made to further improve our knowledge and ultimately the quality of care for children with immune-mediated inflammatory diseases."

More information: Conference abstracts: journals.lww.com/jpgn/Documents/54th%20Annual%20Meeting%20of%20ESPGHAN_Abstract_Book.pdf

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