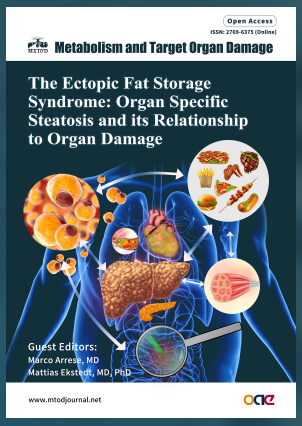
The Ectopic Fat Storage Syndrome: Organ Specific Steatosis and its Relationship to Organ Damage



Guest Editors:

Mattias Ekstedt, MD, PhD
Department of Health, Medicine and Caring Sciences (HMV), Linköping University, Linköping, Sweden.

Marco Arrese, MD
Department of Endocrinology, Faculty of Medicine, Pontificia Universidad Católica de Chile, Santiago, Chile.

Special Issue Introduction:

In this special issue of *Metabolism and Target Organ Damage*, we focus on triglyceride accumulation in adipose, particularly non-adipose tissues, herein labeled *the ectopic fat storage syndrome.*

In the last three decades, the global prevalence of type 2 diabetes mellitus and obesity have increased two- and sixfold, entailing an upward spiraling epidemic. In parallel with triglyceride accumulation in adipose and non-adipose tissue, the development of insulin resistance and the emergence of metabolic syndrome traits results in an increased risk of mortality and morbidity. However, the significance of the metabolic syndrome has been debated, as some claim that the risk prediction of the syndrome is not greater than the sum of its components, that there is no unifying pathophysiological mechanism to define the syndrome, and that the current definition is still too ambiguous.

During the 21st century, exponential technical advancements in medical imaging have revolutionized research and patient care. Detailed imaging, especially magnetic resonance imaging, has given us the tools to make a detailed analysis of body composition, including detailed information on fat accumulation, in both adipose and non-adipose tissues, *i.e.*, ectopic fat accumulation.

The relevance of ectopic fat accumulation is today widely acknowledged as both a consequence and driver of insulin resistance and, ultimately, the development of type 2 diabetes. Ectopic fat accumulation within the liver has been established as a separate disease entity referred to as Non-Alcoholic Fatty Liver Disease (NAFLD) or Metabolic Associated Fatty Liver Disease (MAFLD) and has been proven to be a significant driver of advanced liver disease. The consequences of fat accumulation in tissues except liver have been scarcely investigated until recently, when studies utilizing advanced imaging techniques have become more common.

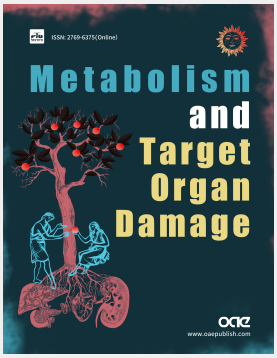
Therefore, it is with great pleasure that, as guest editors, we introduce you to this edition of Metabolism and Target Organ Damage, where we present a collection of articles trying to untangle the relationships between adipose tissue, ectopic storage syndrome, and the metabolic syndrome. We have gathered renowned experts from all over the world to cover different aspects of imaging, pathophysiology, clinical relevance, and differential diagnoses to define clinically relevant phenotypes. We hope that readers find updated state-of-the-art information on the topic and guide future researchers in the field.

Benefits to Authors:

- The APCs ($600) will be WAIVED;
- Provide Language Polishing Service by Native English Speakers. The fee is undertaken by the journal;
- Enjoy faster publication than regular submissions;
- Authors will be invited as Guest Speakers to our journal webinars. The webinar will be held via Zoom and it will also be broadcast live on Youtube and the Chinese WeChat Official Account, Video Account, Bilibili;
- A special interview will be provided to authors and will be promoted on the journal homepage and all media promotion platforms of both via the journal and publisher ;
- Winner(s) of the "Best Paper Award" will be awarded. The reward will be in the form of a cash prize and a certificate.

Journal Introduction:

Metabolism and Target Organ Damage (M&TOD, https://mtodjournal.net/, ISSN: 2769-6375) is a journal newly launched in 2021 with fast development in the past few months. It is an international, peer-reviewed, open access interdisciplinary journal which provides an online platform for the publication of clinical, basic, and translational studies. It covers (cardio)-metabolic disorders per se, such as obesity, diabetes, dyslipidemias, arterial hypertension and hyperuricemia in all age groups.



Editorial Board team:

Scan the QR code to view the journal website