The clinical syndrome of anaesthetic-triggered malignant hyperpyrexia (MH) in pigs is described. It is considered to be the same as MH in humans and is likewise genetic in origin. Clinical features are accompanied by profound acidosis. Histological change is found in muscle only. In vitro, an abnormal depletion of muscle ATP is observed. Halothane, chloroform, and suxamethonium are identified as triggering agents. 

The authors of this paper, an interdisciplinary group that included surgeons, anaesthetists, pathologists, pharmacologists, toxicologists, and intensive care physiologists, were led to investigate specifically the ATP content of muscle of pigs of the human condition. Here, indeed, was the animal experimental model of MH.

This discovery, reported first in a preliminary communication and definitively thereafter in this paper, was seminal. Today, just less than 20 years later, though the minutiae of the pathogenesis of MH have yet to be elucidated, knowledge that has come from worldwide studies in MH swine has led not only to effective pharmacological control of the syndrome, but also to valuable spin-offs in many biomedical areas, in particular those of muscle and membrane physiology, calcium transport, and kinetic models of the cell.

Of all the complications of general anaesthesia, perhaps the most dramatic, and indeed frightening, is that veritable metabolic storm that characterizes the so-called MH syndrome. The authors of this paper, an interdisciplinary group that included surgeons, anaesthetists, pathologists, pharmacologists, toxicologists, and intensive care physiologists, were led to investigate specifically the ATP content of muscle of pigs of the human condition. Here, indeed, was the animal experimental model of MH.

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