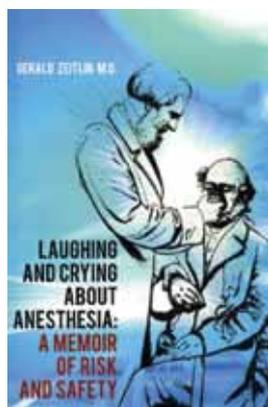


A Comprehensive Glance into the Past of a Young Medical Profession. Laughing and Crying about Anesthesia: A Memoir of Risk and Safety

By Gerald Zeitlin MD. Allandale Publishers, Chestnut Hill, MA, and London, England, 2011

IMAJ 2012; 12: 778–779



It would not be too challenging to put together enough material to write a history of any of the medical professions, such as internal medicine or surgery. One could start with Hippocrates or Ambroise Paré (the surgeon-barber of the 18th century) and cite a series of *époques*, one more interesting than the other. Anesthesiology is a rather young specialty,

and only in the last 70–80 years has it become a medical profession (I vividly remember my medical studies, some 50 years ago in Romania where nurses still administered anesthesia in the operating room). So, a history of anesthesia as a profession would be a short one, but it has an element of universality; since it is responsible for the lives of more patients than most other specialties, anesthesiology developed as a profession almost simultaneously around the world (the news about the use of ether for general anesthesia in Boston in October 1846 reached Europe in less than two months!). As a medical specialty, anesthesiology holds an important place in the medical milieu of every hospital. Currently, some 250 million surgical procedures are performed yearly around the world, the vast majority under the supervision and direct intervention of an anesthesiologist.

The history of anesthesia has a phylogenetic pattern, but writing one's own

personal history as an anesthesiologist is an ontogenetic literary work. Such is the case of Gerald Zeitlin, one of America's prominent anesthesiologists. His personal history as an anesthesiologist (or "anaesthetist," since Zeitlin was born and practiced in the United Kingdom) started not too many years after the first tracheal intubation for general anesthesia and only a few years after the well-known polio epidemics in Scandinavia, which led to a significant revolution in the war against respiratory failure. Dr. Zeitlin is indeed part of the vivid history of Anesthesiology, and since he practiced on two continents, the old and the new, his view on this profession is a comprehensive one and of interest to anyone eager to know how this medical domain evolved – from a bunch of procedures performed by non-medical professionals to an established scientific branch of medicine.

A question that arises when reading the book is – the readership. While the book is addressed to the public at large since it includes explanations and details known by any physician and especially any anesthesiologist, the professional will soon discover stories, comments and images that are of great interest to all readers ready to enrich their knowledge of what happens in the operating room while the patient is asleep and soon after he/she is alert. Zeitlin's book touches a multitude of aspects related to the everyday activity of the average anesthesiologist; however, the space limitations of this review per-

mit only a few references. One of the excellent parts of the book describes the atmosphere in a British hospital in the middle of the last century, with the porter who is in charge of everything; and the passage from chloroform and ether to halothane, the volatile drug that completely changed general anesthesia methodology in the operating room.

For someone who for the last fifty years has witnessed the anesthesiologist's perennial interest in assuring the patient's safety, the book offers some hints on the evolution of the means at the physician's disposal to reduce the anesthesia risk to a minimum. Zeitlin writes that during his residency he could tell a "healthy" patient that his/her risk to die under anesthesia was 1 to 1500. Safer anesthesia drugs, better equipment, and the obligation to use instrumental monitors for every patient reduced the rate to 1 to 150,000. This is why Zeitlin defines the history of modern anesthesia as the history of the struggle for patient safety.

However, things did not change quickly. In 1975, on the writer's return visit to London, UK, he discovered to his immense surprise that there were almost no recovery rooms for the immediate postoperative surveillance of the surgical patient. Back in the U.S., "Surgeons were performing tonsillectomies without allowing us to insert breathing tubes to protect the child's airway; mothers in labor were still being given heavy sedation, usually a drug called scopolamine, the effect of which was to make them act crazily; vascular surgeons were operat-

ing on patients with concomitant heart disease without any of the sophisticated invasive monitoring that was becoming standard by then; very sick patients were sent to the intensive care unit (ICU) connected to breathing machines without anyone with ICU expertise to monitor them.”

The reader is invited to compare this historical description with today’s state-of-the-art situation in order to comprehend the giant steps taken by Anesthesiology in the last 30 years. Anesthesiology is a team discipline, and the anesthesiologist’s main partner is the surgeon. Zeitlin’s book traces the evolution of the relations between the two specialties. Once called “the sleeping partner” in the operating room, the anesthesiologist became, gradually, a collaborator, a real partner, a professional whose contribution to the patient’s

welfare could not be overemphasized. As Zeitlin writes, “Not all of the surgeons were the enemy.” Reading this sentence I could not help but ask: Whose enemy? The anesthesiologist’s? Surely not. A non-cooperative surgeon in the operating room could only be his own patient’s enemy.

Zeitlin is a British anesthesiologist who settled in the USA, but I feel that he remained British and his professionalism, thoughts and philosophy are more British than American. In my eyes, he thinks British and mentally still lives in England. But Gerald Zeitlin is also Jewish. His book includes quotations from Jewish prayers and also mentions the origin of our professional name in Hebrew, *mardim*, which derives from *tardemah*, a word that appears in the book of Genesis.

Other topics include addiction to drugs, the importance of clinical research,

the anesthesiologist’s direct responsibility to the surgical patient, his/her activities outside the operating room – all fascinating and integral aspects of what anesthesia means as a profession today.

The book also includes a chapter on Gerald Zeitlin the patient. The subject of the physician needing medical treatment is always intriguing. Written with sensitivity and humility, this chapter brings the reader in and we cannot help but empathize with the patient who will receive electroconvulsive therapy for depression.

For those readers unaware of the two sides of Anesthesiology as a medical profession, a combination of art and science, Gerald Zeitlin’s splendid book is a must read.

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Capsule

Targeting VEGF-B as a novel treatment for insulin resistance and type 2 diabetes

The prevalence of type 2 diabetes is rapidly increasing, with severe socioeconomic impacts. Excess lipid deposition in peripheral tissues impairs insulin sensitivity and glucose uptake, and has been proposed to contribute to the pathology of type 2 diabetes. However, few treatment options exist that directly target ectopic lipid accumulation. Recently it was found that vascular endothelial growth factor B (VEGF-B) controls endothelial uptake and transport of fatty acids in heart and skeletal muscle. Hagberg and co-scientists show that decreased VEGF-B signaling in rodent models of type 2 diabetes restores insulin sensitivity and improves glucose tolerance. Genetic deletion of *Vegfb* in diabetic *db/db* mice prevented ectopic lipid deposition, increased muscle glucose uptake and maintained normoglycemia. Pharmacological inhibition of VEGF-B signaling by antibody administration to *db/db* mice enhanced glucose tolerance, preserved

pancreatic islet architecture, improved B cell function and ameliorated dyslipidemia – key elements of type 2 diabetes and the metabolic syndrome. The potential use of VEGF-B neutralization in type 2 diabetes was further elucidated in rats fed a high fat diet, in which it normalized insulin sensitivity and increased glucose uptake in skeletal muscle and heart. Their results demonstrate that the vascular endothelium can function as an efficient barrier to excess muscle lipid uptake even under conditions of severe obesity and type 2 diabetes, and that this barrier can be maintained by inhibition of VEGF-B signaling. The authors propose VEGF-B antagonism as a novel pharmacological approach for type 2 diabetes, targeting the lipid-transport properties of the endothelium to improve muscle insulin sensitivity and glucose disposal.

Nature 2012; 490: 426
Eitan Israeli

“In our world of big names, curiously, our true heroes tend to be anonymous. In this life of illusion and quasi-illusion, the person of solid virtues who can be admired for something more substantial than his well-knownness often proves to be the unsung hero: the teacher, the nurse, the mother, the honest cop, the hard worker at lonely, underpaid, unglamorous, unpublicized jobs”

Daniel J Boorstin (1914-2004), American historian, professor, attorney, and writer appointed twelfth Librarian of the United States Congress from 1975 until 1987