



Ultrastruct Pathol. 2005 May-Aug;29(3-4):221-35.

## **Cell death by autoschizis in TRAMP prostate carcinoma cells as a result of treatment by ascorbate:menadione combination.**

Gilloteaux J, Jamison JM, Neal DR, Summers JL.

### **Source**

American University of the Caribbean School of Medicine, Campus St. Maarten, M.E.I.O., Inc, Coral Gables, Florida 33134, USA. jagillot@yahoo.com

### **Abstract**

A prostate carcinoma cell line derived from the transgenic murine prostate cancer model (TRAMP) was treated with ascorbate (VC) alone, menadione (VK(3)) alone, or a combination of ascorbate:menadione (VC + VK(3)) for 1, 2, and 4 h. Cytotoxic cell alterations examined by light and electron microscopy were treatment-dependent with VC + VK(3) > VC > VK(3). Induced by oxidative stress, these alterations included cytoskeletal changes conducive to cytoplasmic blebbing, self-excisions, and progressive nuclear alterations. While the excised parts contained ribosomes, they were devoid of nuclear fragments or other organelles. The organelle-free self-excisions caused an extreme reduction in cell size as well as chromatolysis and karyolysis that were consistent with cell death by autoschizis, but not with apoptosis.

PMID:

PMID: 16036878 [PubMed - indexed for MEDLINE]