CLINICAL RESEARCH – LOW LIGHT LASER FAT LIQUEFACTION

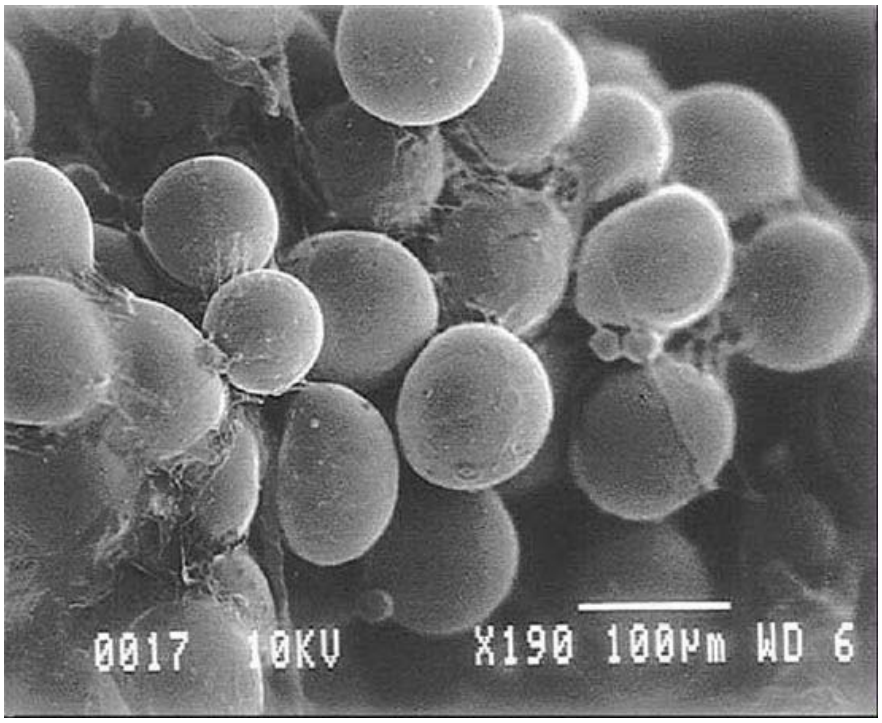

Figure 1 -- SEM Picture. The adipocytes have round shape; contours are regular having a grape-cluster shape. Picture magnification of 190X. This figure has received tumescent solution.

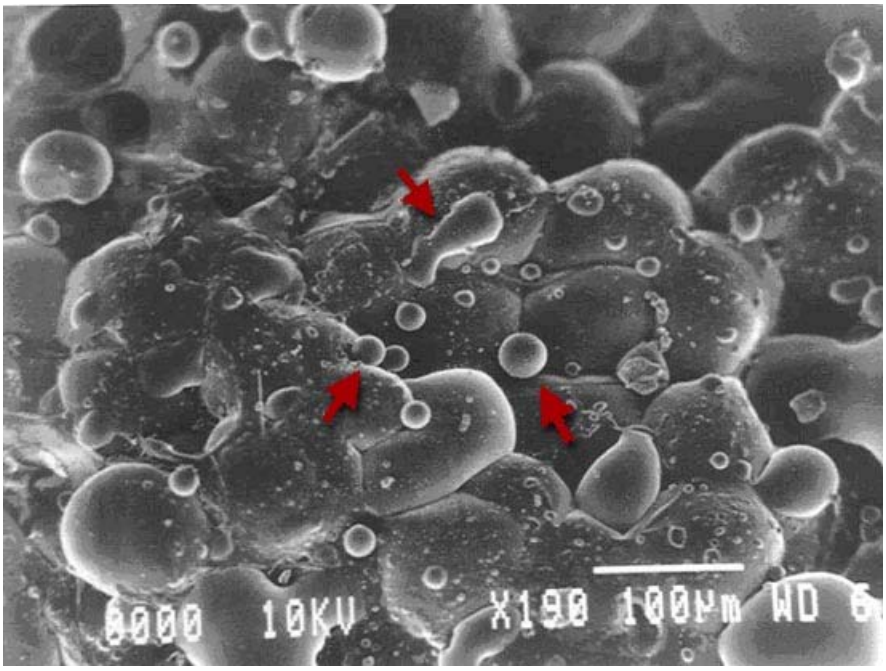

Figure 2A -- SEM picture. Application of the laser beam for 4 minutes Only few adipocytes are liquefied, there is preservation of some cell membrane, some has lost its original shape 190X magnification. Arrows point out fat particles coming from inside to outside of the adipose cell.

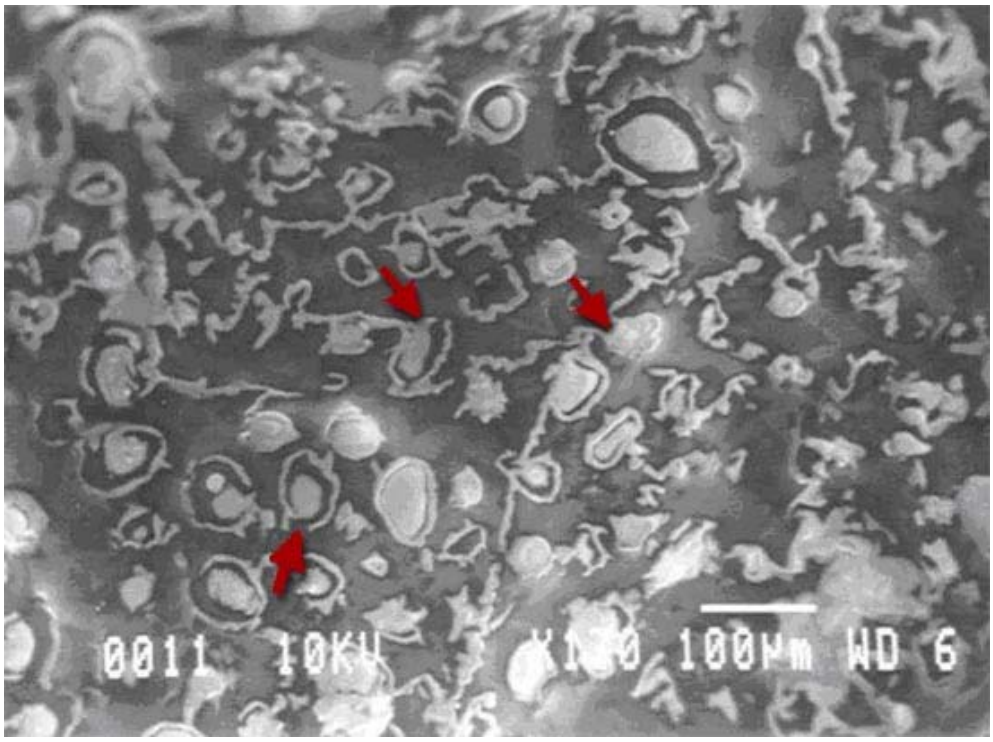

Figure 2B -- SEM picture. Adipocyte exposure to the laser beam for 4 minutes, adipocytes have lost its round shape some have a star and oval shape. 130X magnification.

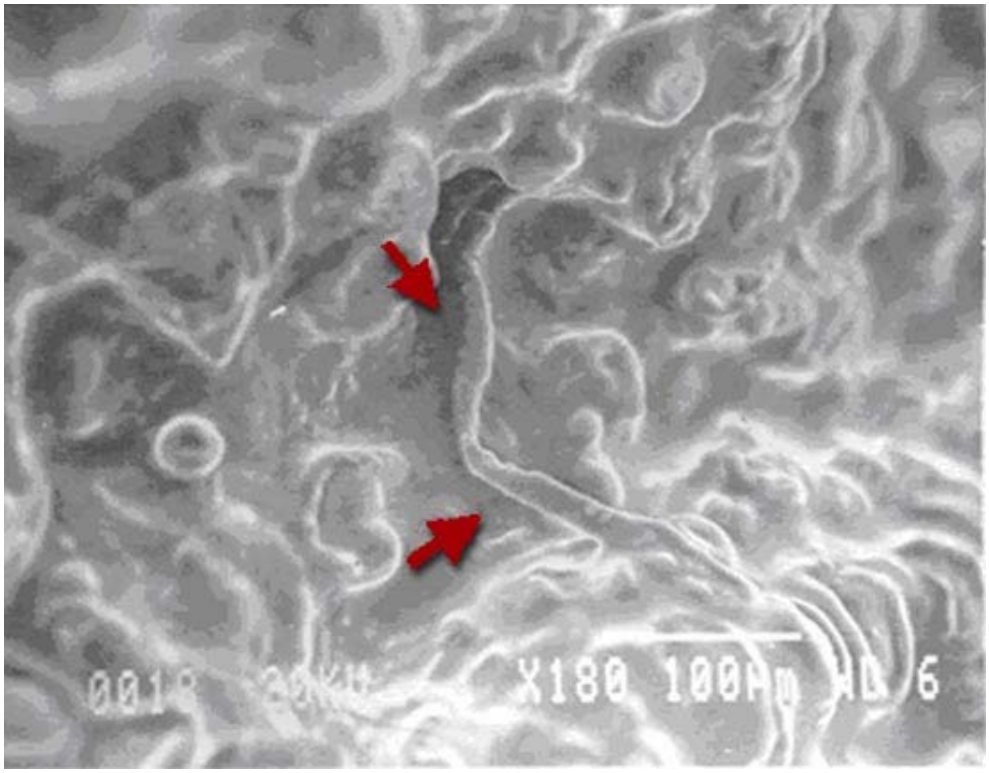

Figure 3A -- SEM picture. Application of the laser beam for 6 minutes shows that there are not round adipocytes; you only see fat liquefied 190X magnification. Arrows point out fat coming out of the adipose cell

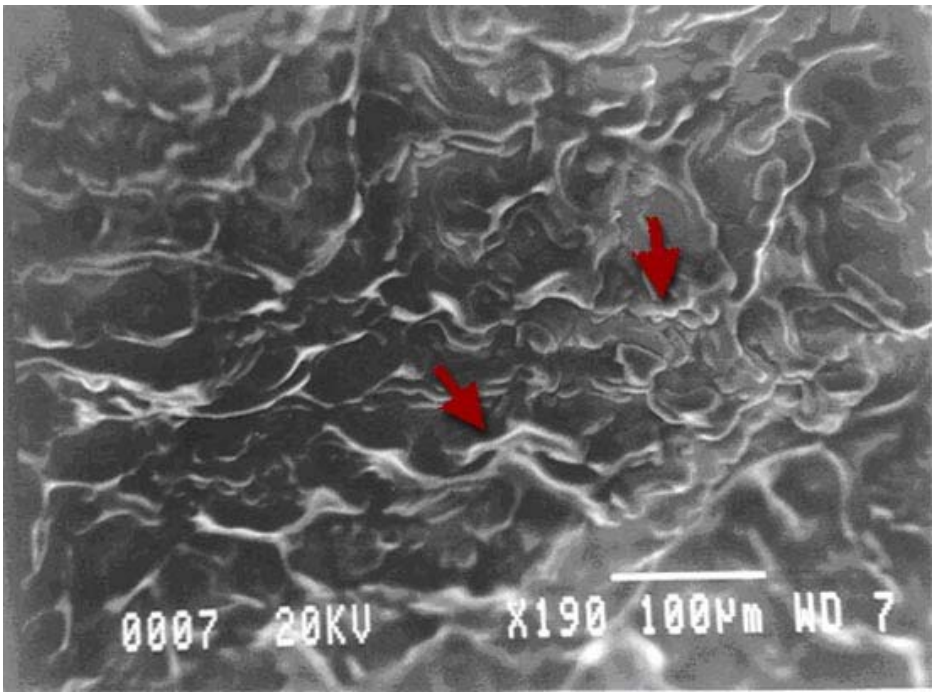

Figure 3B -- SEM picture. Application of the laser beam for 6 minutes shows that there are not round adipocytes; you only see fat liquefied 190X magnification. Arrows point out fat coming out of the adipose cell

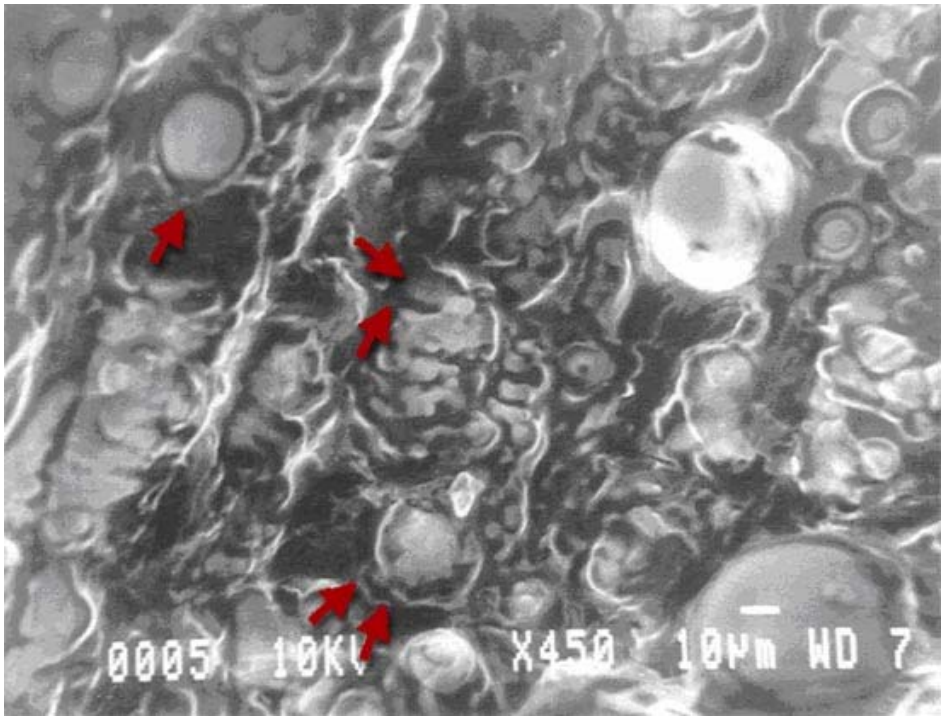

Figure 4 -- SEM picture. Application of the laser beam for 6 minutes without tumescence shows that some adipocytes are intact, but some are disrupted. 450X magnification. Single arrow points out an intact cell, double arrows point out the disrupted cells.

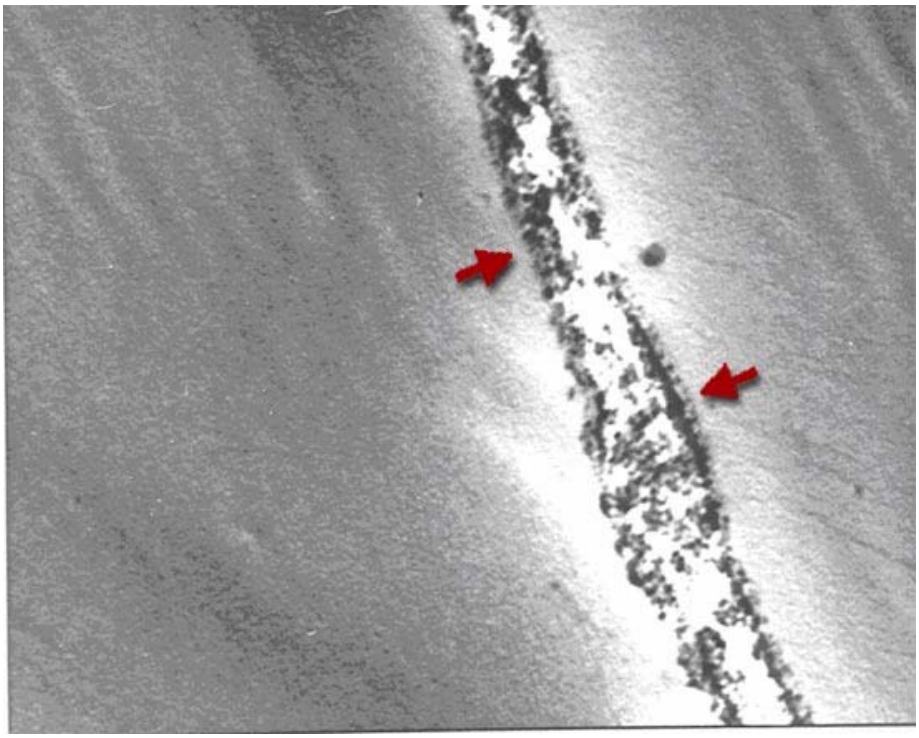

Figure 5 shows the adipose membrane at 40000X magnification - The membrane remains intact when the laser has not been applied.

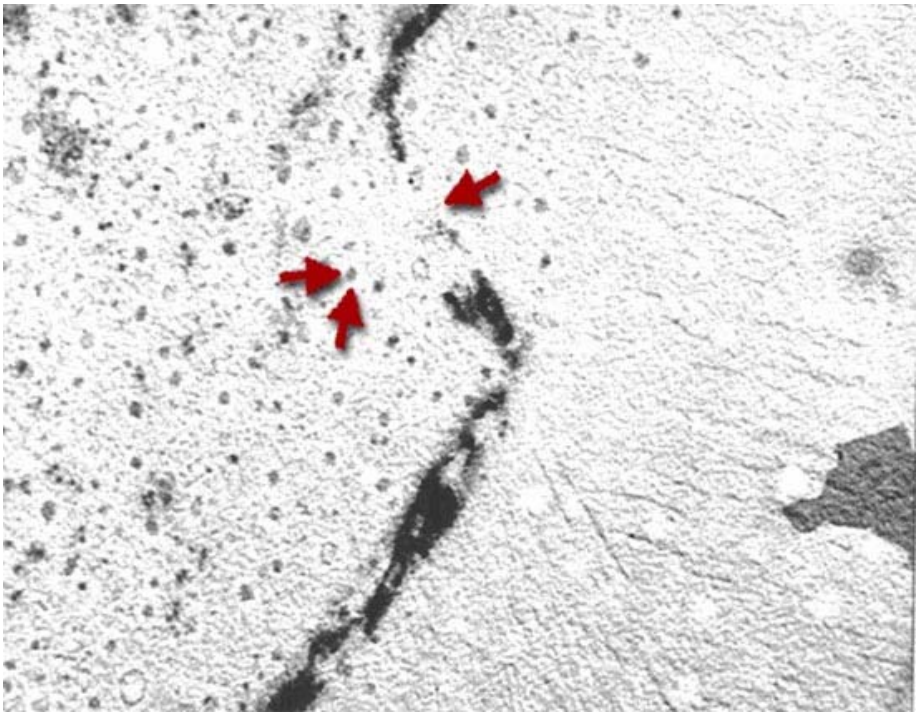

Figure 6 - TEM picture. Shows the cell membrane at 60000X magnification. After 6 minutes of laser exposure, the membrane is temporarily disrupted creating a transitory pore (see single arrow) that allows the liquefied fat to come out of the cell and be released into the interstitial space. Double arrow points out the fat particles released from inside the cell.

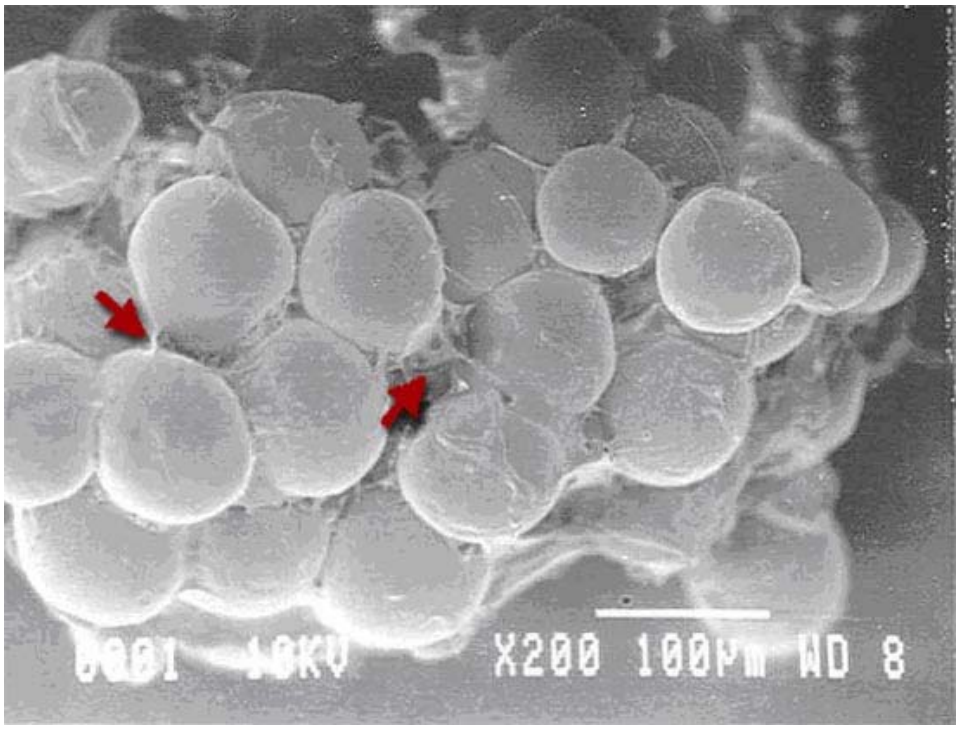

Figure 7 -- SEM picture. No laser exposure. Adipocyte intact, several collagenic fibers can be seen surrounding the adipose tissue. 200X magnification. Arrows point out collagenic fibers.

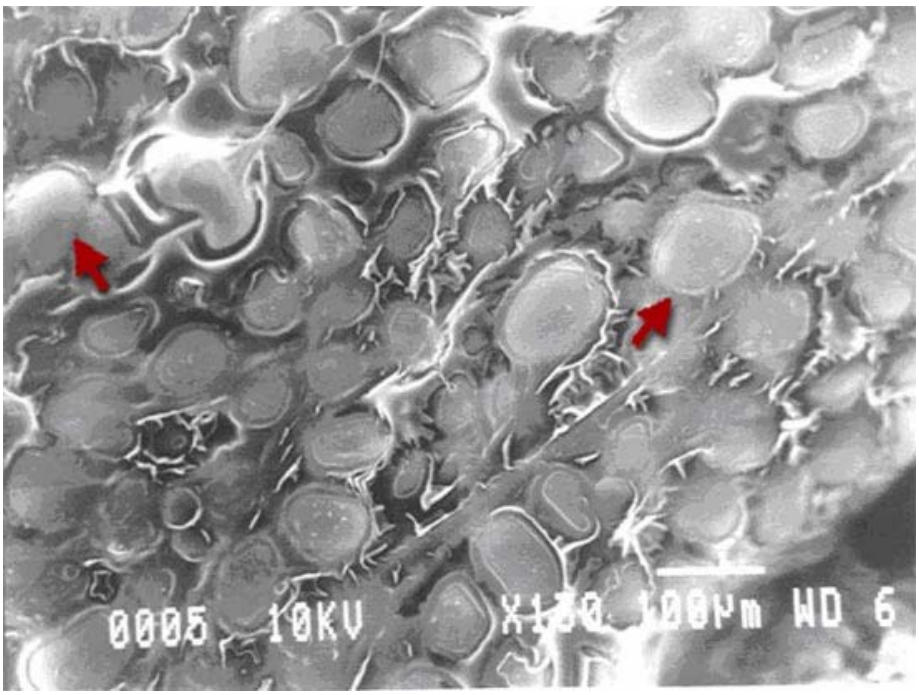

Figure 8 -- SEM picture. 4 minutes laser exposure. No tumescence has been applied. Only a few adipocytes have been liquefied. 190X magnification. Arrows point out intact adipose cells.

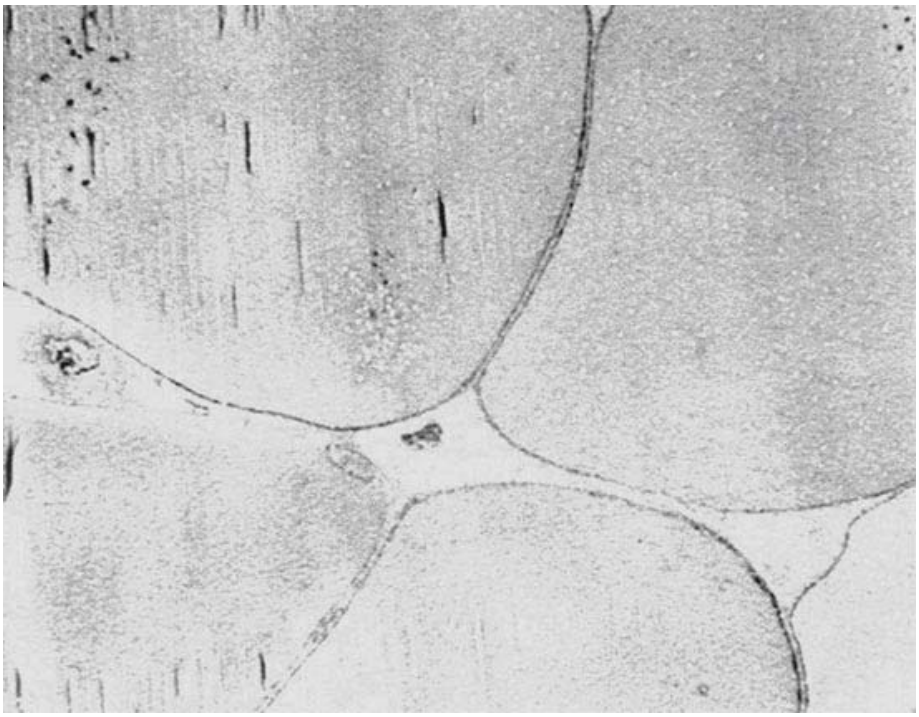

Figure 9 -- TEM pictures. The adipocytes are completely saturated with fat and close to one another. 20000X magnification.

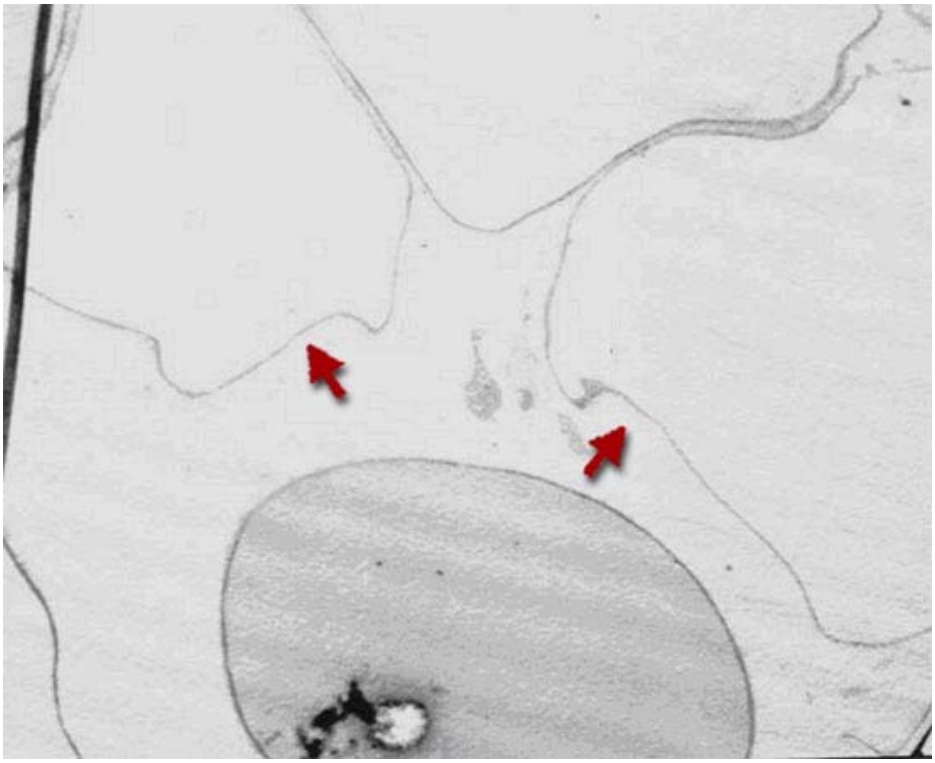

Figure 10 -- TEM picture. 4 minutes laser exposure. There is partial loss of the intracellular fat and the membrane has became flexed since has lost part of its fat content. 20000X magnification.

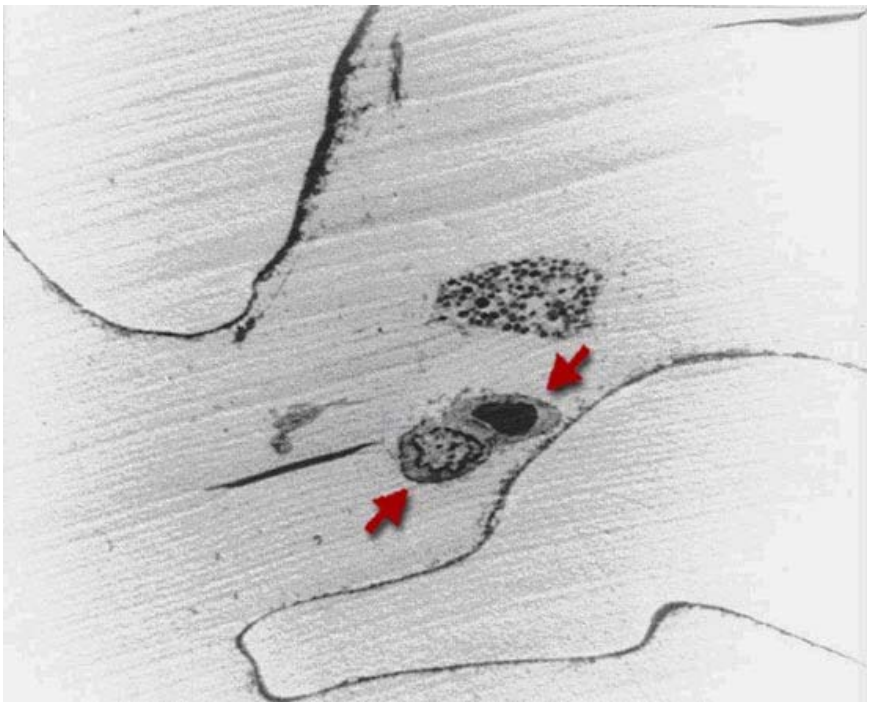

Figure 11 -- TEM picture 4 minutes laser exposure. The adipose membrane is flexed and deformed. Capillaries remain intact in the intercellular space. 20000X magnification. Arrows show an intact capillary.

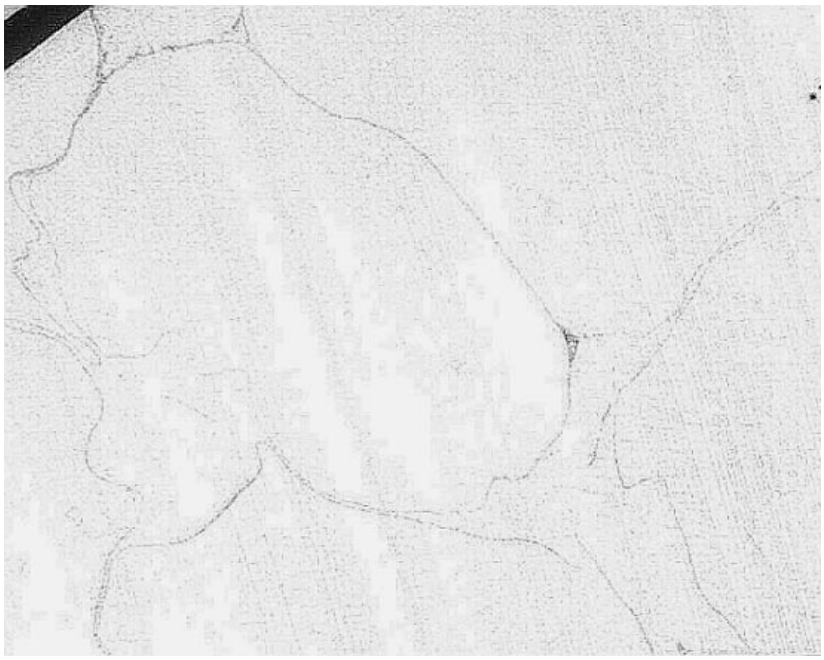

Figure 12 -- TEM picture. Recorded after 6 minutes laser exposure there is almost total disruption of the adipocyte membrane. The adipose cell has lost almost completely its fat content. 20000X magnification.