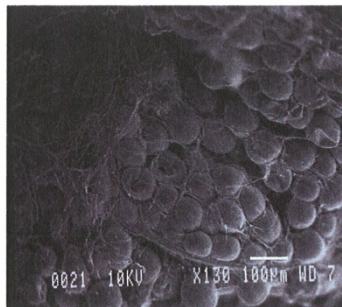


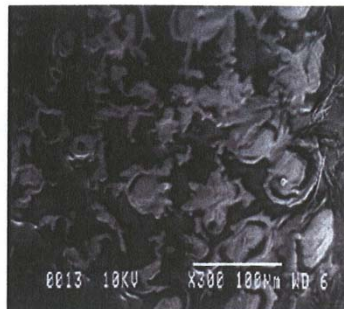
## Low-Level Laser-Assisted Liposuction: the Neira 4 L Technique

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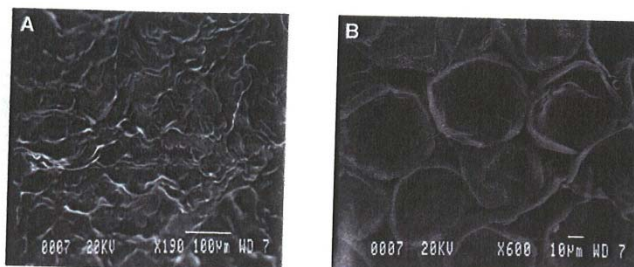
- Mechanisms of action of low-level lasers
  - *Effects of low-level lasers on the adipose cell membrane and mitochondria*
  - *Effect of laser light on the body*
  - *Biophysical effects of laser light on adipose cells*
- Low-level laser-assisted liposuction
  - *The procedure*
  - *Treatment of complications*
- Discussion
- Summary
- Acknowledgments
- References



**Fig. 1.** Scanning electron microscope (SEM) image of normal adipose membrane of adipocyte. Some connective tissue is evident surrounding the adipose cells.



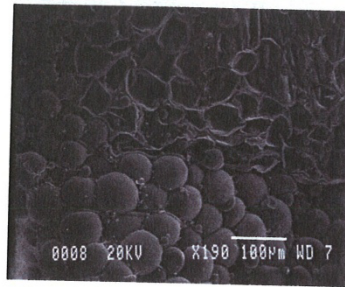
**Fig. 2.** Adipocytes after 4 minutes laser exposure. Some are deformed and have a crenate shape.



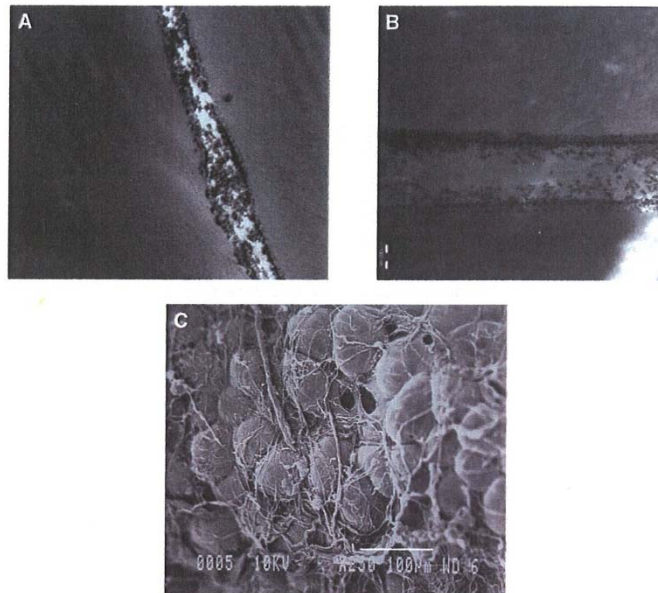
**Fig. 3.** (A) Adipose tissue after 6 minutes of laser exposure. Fat is outside the cell, and only membranes are seen. (B) The adipocytes have lost their fat and look deflated.



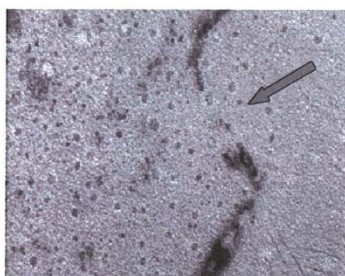
**Fig. 4.** Transmission electron microscopy (TEM  $\times 60,000$ ) of the membrane after 6 minutes laser exposure. (Channel formation)



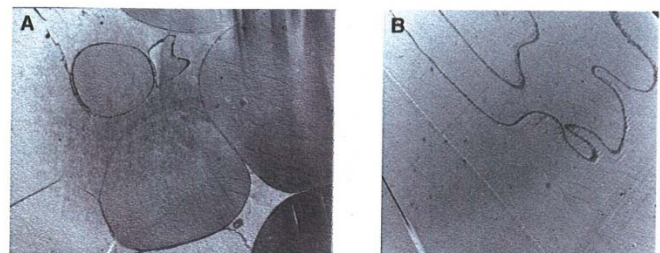
**Fig. 5.** Upper half of the image depicts "deflated" adipocytes. Lower half of the image demonstrates normal adipocytes.



**Fig. 6.** Normal adipose membrane. (A) Transmission electron microscope (TEM) image without irradiation, original magnification  $\times 400,000$ . (B) TEM image without irradiation, original magnification  $\times 50,000$ . (C) Fat tissue from the back has more conjunctive and reticular tissue, explaining why it is harder to remove.



**Fig. 7.** 6 minutes laser exposure demonstrating interruption of the adipose cell membrane.



**Fig. 8.** (A) Transmission electron microscopy (TEM) showing adipocyte cell with well defined borders, no laser exposure. (B) TEM adipocyte after 6 minutes laser exposure, flexed membrane.