

News

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****Dye laser removes portwine stains from children

Until recently, birthmarks called port wine stains (for example, the birthmark on Soviet leader Gorbachev's forehead) were not considered treatable.

New developments in technology have now made laser treatment effective for removing port wine stains. Physicians at The University of Texas Southwestern Medical Center at Dallas are among those of the first five health-care institutions in the United States to experiment with a tunable dye argon laser to remove the birthmarks.

"Before this type of laser was developed, there was no acceptable treatment for port wine stains," said Lynne Roberts M.D., assistant professor of dermatology and pediatrics at the medical school and co-director of dermatology at Children's Medical Center. "In addition to the medical implications, which include soft tissue deformity and vascular tumors, port wine stains are unsightly and often cause quite a psychological problem."

The dye laser can be tuned to the specific wavelength of light that will give the desired biological effect. According to Dr.

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Roberts, the 577-nm wavelength has been determined to be highly absorbed by blood vessels. The intense energy of the laser beam destroys the enlarged and excess blood vessels of the port wine stain while leaving surrounding, normal tissue unaffected.

Because the dye laser affects only the stained area, the risk of scarring, formerly between 50-60 percent with older types of laser treatment, is "virtually remote -- less than two percent," said Dr. Roberts.

Stain removal is especially beneficial for children because the unsightly appearance of port wine stains often causes psychological trauma for a child. Treatment at a young age can save a child many years of coping with low self-esteem.

Dr. Roberts is currently the only pediatric dermatologist in the North Texas area using dye laser technology to treat children with the birthmarks. Board certification in both dermatology and pediatrics has been especially important in her work with port wine stain removal in children.

Treatment with the dye laser involves tracing the stain with a continuous light beam. Because the process can be painful, sedation similar to the type used when an oral surgeon extracts teeth is given to children. The treatment itself is scheduled on an out-patient basis, as it usually takes no longer than one hour.

In the past two years, dermatologists at the medical center have treated 14 children and 40 adults with port wine stains. Dr. Roberts has performed dye laser surgery for an additional 70 patients with other vascular abnormalities including hemangiomas and telangiectasias (broken veins).

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Port wine stains occur in approximately three out of every 10,000 births and affect Caucasians more often than blacks or Hispanics. At birth, the stains are flat with a pink or red coloration. They tend to darken and take on a raised or lumpy appearance throughout adolescence and adulthood.

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Note: The University of Texas Southwestern Medical Center at Dallas comprises Southwestern Medical School, Southwestern Graduate School of Biomedical Sciences and Southwestern Allied Health Sciences School.