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<tr>
<td><strong>Citation</strong></td>
<td>The 6th Medical Research Conference, Hong Kong, China, 13-14 January 2001, v. 23 n. 2 Supp, p. 38</td>
</tr>
<tr>
<td><strong>Issued Date</strong></td>
<td>2001</td>
</tr>
<tr>
<td><strong>URL</strong></td>
<td><a href="http://hdl.handle.net/10722/46855">http://hdl.handle.net/10722/46855</a></td>
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S-D-1

Nevus of Ota: a New Classification Based Upon the Response to Laser Treatment
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Kong; 5Department of Ophthalmology and Visual Science, The Chinese University of Hong Kong, Hong Kong.

Background and Objective: For 60 years, Tanino's classification has been used to classify the
extent of nevus of Ota. However, such classification not only fails to address variants such as phacomatosi
pigmentovascularis, but also cannot be used to predict the therapeutic outcome. Our objective is to
retrospectively study our series of laser-treated patients with the aim of re-classify nevus of Ota, so that
such important issues can be taken into account.

Study Design/Material and Methods: One hundred and nineteen patients that had received Q-
switched laser treatment were recruited into the study. They were recalled for interview and examination
for evidence of co-existing birthmarks and extra-cutaneous involvement. Two observers assessed the pre
and post-treatment clinical photographs for evidence of peri-orbital under response (Panda's sign), defined as
the degree of peri-orbital laser clearing significantly less than clearing in the other area.

Results: 47.8% of the patients with peri-orbital pigmentation were considered by the observers to
have significant peri-orbital under response (Panda's sign). 10.1% had other birthmarks, and extra-
cutaneous involvement was seen in 31.4% of the patients.

Conclusion: Peri-orbital under response is commonly seen in patients with peri-orbital pigmentation.
Taking this and other factors into consideration, we have proposed a new classification for nevus of Ota
that allows for the prediction of the clinical outcome of laser treatment.

S-D-2

A Retrospective Analysis of Complications of Treatment of Nevus of Ota with the Q-Switched
Alexandrite (QS Alex) and Q-Switched Neodymium: Yttrium-Aluminum-Garnet (QS Nd-YAG)
Lasers
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Background: Studies on the use of QS Alex and QS Nd-YAG lasers in the treatment of nevus of Ota were
limited to case reports and small series. There was no study that looked at the complication rate of these systems.

Objective: To retrospectively study the complication rate of nevus of Ota patients that were treated by QS
Alex laser, QS Nd-YAG laser, and a combination of both.

Setting: A teaching hospital and a private hospital, where 513 patients with nevus of Ota had been treated
since 1993.

Patients: 171 patients with 211 treatment sites were evaluated retrospectively following treatment with QS
Alex laser only (n=58), QS Nd-YAG laser (n=105) only or a combination of both systems (n=48).

Methods: Patients were called back to be interviewed and examined by two independent clinicians to look for
evidence of complications.

Results: 15.3% of the treatment sites had hypopigmentation, 2.9% had hyperpigmentation, and texture
changes and scarring were seen in 2.9% and 1.9% respectively. The combined treatment group was associated
with a significantly higher risk of complications. Thirteen patients had recurrence of their nevus after complete,
or near complete clearance with laser treatment.

Conclusion: Hypopigmentation is common after the use of QS laser for lightening of nevus of Ota. This
particularly applies when alternate treatment with QS Alex and QS Nd-YAG is used. Recurrence is an important
issue and must be taken into consideration, especially when children are treated.