



<b>Title</b>	<b>Nevus of Ota: a new classification based upon the response to laser treatment</b>
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## S-D-1

### **Nevus of Ota: a New Classification Based Upon the Response to Laser Treatment**

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**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 phacomatosis 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.