Abstract: Introduction  
Facial attractiveness may lead to an interpersonal success, particularly in young people. The purpose of the present study was to investigate the changes of lip-line and occlusal cant following bimaxillary orthognathic surgery in patients with asymmetric mandible and find the ratio between LLC and occlusal cant change after surgery.

Methods  
In over 2.6 deviation of Lip-line cant, twenty six patients were enrolled the study by randomized sampling. More than 65 years old and with systemic disorders can't tolerate the general anesthesia so that written informed consents were obtained before entering patients into the study. Lip-line cant frontal photographs were taken before surgery then 5 months later. Then the lip line change was assessed with craniofacial measurements obtained from frontal cephalograms and maxillofacial 3-dimensional computed tomography images by the angle of each labial commissure and the bi-pupillary reference line. The angle between each maxillary first molar occlusal surface and the bi-frontozygomatic suture reference line was used. Data analysis was done by SPSS.

Results  
With the angular measurement, the average lip line cant improved to 0.67° and the average of occlusal changed to 3.83°. The average occlusal and the average lip cant were 2.98 mm±1.95 SD and 1.46 mm±0.56 SD. In the angular measurement the lip correction ratio to occlusal cant correction was 63.8%±9.1% and in the linear measurement 60.5%±9.3%. The angular measurement and the linear measurement were 0.976 and 0.968 respectively.

Conclusions  
There's a high correlation between the occlusal cant change and lip cant so that bimaxillary orthognathic surgery can correct lip cant and occlusal cant.