INTRODUCTION:

The eyebrow configuration in the frontal plane has long been a major key in facial rejuvenation and contouring procedures. The two dimensional approach in defining the eyebrow complex does not adequately provide the attractiveness on this complex. Introduction of fat grafts has emphasized the third dimension in facial evaluation. Surface elevations are essential since light reflection defines the visual perception. Volume loss is a major component in facial aging. At the proximal third of the face, most of the past efforts focused on the eyebrow positioning in frontal plane. This study investigated the correlation of oblique supraorbital fullness with the perception of attractiveness in the upper 1/3 of face.

MATERIALS AND METHODS:

Part 1:
Two groups of oblique periorbital pictures (N=20) that demonstrate the low(A) and high(B) oblique frames have been selected. Randomly selected ten subjects interpreted the pictures in terms of attractiveness within a scale of 0 to 2 (0= unattractive, 1= no inclination, 2= attractive).

Oblique superior orbital surface area (OSOA) and the angle between the oblique line of supra ocular soft tissue projection and vertical axis (angle of oblique projection: AOP) were defined as the parameters for height classification (figure 1).

Part 2:
As a second part of this study we have utilized the same methodology for the pictures of patients who undergone fat graft applications to increase oblique supraorbital projection.

Preoperative and postoperative oblique pictures of 20 patients who have undergone lateral supraorbital augmentation with fat graft has been utilized for measurement of differences in a similar comparison scale and used in part 1 (figure 2).

RESULTS:

Part 1: Group A pictures: 345 points, Group B pictures 208 points. (Statistical significance + (p ≤ 0,05)

Part 2: Postoperative Pictures: 328, Preoperative Pictures: 193. (Statistical significance + (p ≤ 0,05)
DISCUSSION:

Eyes, playing the most essential part in facial perception should be surrounded by high walls, similar to the principle of utilizing the frame for the pictures on the wall. Height of eye frame in sagittal plane (particularly superiolateral orbital segment) positively correlates with the degree of attractiveness.

During facial volume restoration, the supraorbital frame should be taken into consideration.

Figure 1: Oblique superior orbital surface area (OSOA) and the angle between the oblique line of supra ocular soft tissue projection and vertical axis (angle of oblique projection: AOP) were defined as the parameters for height classification.

Figure 2: Preoperative and postoperative oblique picture of a patient who have undergone lateral supraorbital augmentation with fat graft. Digitized images has been utilized a similar comparison scale and used in part 1.