**Abstract**

**Background**: Todays, interest in the breast augmentation using autologous fat grafting has been increased for reconstructive and aesthetic. The donor sites of the fat grafting from different parts of the body are mostly abdomen, thighs, and flanks. Another donor site that is used for harvesting fat grafting is another breast tissue. Especially in cases where the fat of other areas is not enough for harvesting, the fat of another breast can be used. Some studies demonstrated that transfer breast tissue cells to another breast by injection fat can be even associated with a transfer of cancer cells to the opposite side. In this study we evaluated the aspirate from breast liposuction histologically and determined the fat percentage, fibroblast, and epithelial cells in breast samples.

**Methods**: In this study, all specimens of the aspirate obtained from breast liposuction of 30 participants (women) were sent for histopathology evaluation.

**Results**

30 specimens were evaluated. At age <30 years, there was no epithelial cell, whereas between age 30 to 45 years, in one case (5.6%) and at age <45 years, in 2 cases (66.7%) epithelial cell were observed (p=0.002). At different levels of BMI, the epithelial cell found in 2 cases (66.7%) of participants with BMI between 18.5 - 24.5, and one case with BMI between 25 - 29.9. This was not significant (p=0.07).

**Conclusion**:

There was association between age and epithelial cell percentage. With increasing of the age the percentage of epithelial cells increased significantly. Based on BMI classification the percentage of epithelial cells decreasing with enhancing of BMI, but this was not significant. We found no significant assassination between fibroblast percentage based on BMI and age group classification. There was no significant assassination between fat percentage according to BMI and age group classification too.