Title: Evaluation of microbial contamination of cosmetic-hygienic products (imported) and comparison with permissive range of Iranian standard

Authors: Mojtaba Sadeh*, 1, Safoura Derakhshan2, Morteza Hosseindoust3

Abstract: Introduction:
Daily use of cosmetic-hygienic products (in particular imported products) have very important role in recovery and maintenance of skin and hair health. Therefore, all of hygienic conditions must be assisted in production of these materials and range of microbial contamination of them must be corresponding to Iranian standard. The objective of this study was to evaluate the microbial contamination rate of cosmetic-hygienic products that arrived to the Microbiological Laboratory of Hamkare Gharbe Tehran on the basis of Iranian standard (No. 6342 and 437).

Materials and methods:
In this study, microbial and fungal contamination of all of 32 cosmetic-hygienic samples was investigated. First, the outer surfaces of all dishes containing samples were disinfected with alcohol 70o and serial dilution (10^-1 and 10^-2) were prepared. Iranian standard (No.6342 and 437) used for numerating of total mesophilic aerobic bacteria, Staphylococcus aureus, Pseudomonas aeruginosa, coliforms, yeast and moulds.

Results:
Of the 32 samples examined, 20 samples(62.5%) with respect to S.aureus, P.aeruginosa, coliforms counts and all of samples (100%) with respect to total mesophilic aerobic bacteria counts were in standard ranges and 12 samples (37.5%) have higher contamination rates than standard ranges with respect to yeast and moulds counts.

Conclusion:
Surveys of cosmetic products showed that contamination rate ranging between 2 and 43%; creams and lotions have higher contamination rates than powders. The relative warm weather conditions in Iran are conducive to the increased growth of microorganisms. Therefore, the microbial and fungal contamination of imported products that evaluated on the basis of exporter country standard must be investigated on the basis of Iranian standard, also.

Microbial contamination, Cosmetic-hygienic products, Iranian standard

Presentation: Poster