Background: The assessment of dermatology undergraduates is being done through computer assisted objective structured clinical examination at our institution for the last 4 years. We attempted to compare objective structured clinical examination (OSCE) and computer assisted objective structured clinical examination (CA‑OSCE) as assessment tools.

Objective: To assess the relative effectiveness of CA‑OSCE and OSCE as assessment tools for undergraduate dermatology trainees.

Materials and Methods: Students underwent CA‑OSCE as well as OSCE‑based evaluation of equal weightage as an end of posting assessment. The attendance as well as the marks in both the examination formats were meticulously recorded and statistically analyzed using SPSS version 20.0. Intercooled Stata V9.0 was used to assess the reliability and internal consistency of the examinations conducted. Feedback from both students and examiners was also recorded.

Results: The mean attendance for the study group was 77% ± 12.0%. The average score on CA- OSCE and OSCE was 47.4% ± 19.8% and 53.5% ± 18%, respectively. These scores showed a mutually positive correlation, with Spearman’s coefficient being 0.593. Spearman’s rank correlation coefficient between attendance scores and assessment score was 0.485 for OSCE and 0.451 for CA‑OSCE. The Cronbach’s alpha coefficient for all the tests ranged from 0.76 to 0.87 indicating high reliability. Limitations: The comparison was based on a single batch of 139 students. Such an evaluation on more students in larger number of batches over successive years could help throw more light on the subject.
Conclusions: Computer assisted objective structured clinical examination was found to be a valid, reliable and effective format for dermatology assessment, being rated as the preferred format by examiners.