

## Comparative Study of Pap Smear Quality by using Ayre's Spatula versus Ayre's Spatula and Cytobrush Combination

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### Abstract

**Background:** This study tried to evaluate the quality of Pap smear samples obtained by two methods Ayre's Spatula and Ayre's spatula and cytobrush combination. **Methods:** The study was conducted in 200 patients, at Yashoda hospital, Hyderabad. For each patient first, ectocervical sampling was done with Ayre's spatula. Cytobrush (Cytobrush<sup>R</sup>Plus) GT, Medscand Medical AB, Sweden) was then introduced into the endocervical canal and smear was obtained. Ayre's spatula smeared on two slides (A & B) followed by cytobrush on B slide. After fixing the slides, they were sent to the Pathology Department, where they were stained with Pap stain and a single cytologist read all the slides. The slides were reported following The Bethesda system (2001) (TBS) of reporting. **Results:** There was a significant difference between the two groups while comparing smear quality 184 (92%) of 200 patients had a satisfactory smear when cytobrush was used along with spatula as compared to 106 patients (53%) when spatula was used. Inadequate smears in the form of absent endocervical cells occurred in 10 (5%) patients when smear was taken using cytobrush-spatula as compared to 94 (47%) when spatula was used alone. Thus there is better sampling of the transformation zone with the cytobrush than the spatula alone. Positive pathology was seen in 11 (5.67%) with use of cytobrush-spatula, 5 (2.6%) when the spatula was used. This was statistically significant, which might be due to better sampling of the transformation zone. **Conclusion:** Cytobrush is an easy instrument to use and is well tolerated by patients, it appears to be more effective than the spatula alone in obtaining evaluable specimens, adequate smears and is far superior to the Ayre's spatula in its ability to obtain endocervical cells.