

Comparison of specimen adequacy and smear quality in conventional and liquid-Based Pap tests

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Back ground: Since the best method of cervical smear is a controversial subject, this study was designed to compare two methods

of cervical sampling, consisting of conventional versus liquid base.

Objective: Pap smear is a screening test used to detect pre malignant and malignant processes in the endocervical canal of the female reproductive system. There are two method consists of Conventional Pap that samples are smeared directly on a microscope slide after collection and Liquid based cytology that the smear sample is put in a bottle of preservative for transport to the laboratory, where it is then smeared on the slide. In this study it was decided to compare these two methods of sampling.

Method and materials: This randomized trial was carried out in university Amir Hospital, Semnan, Iran on 240 women undergoing Pap smear screening testing from April to September 2012. Patients were divided to two group including conventional (n=120) and liquid base cytology smear (n=120) groups. The results of cytological reports of both groups were compared in regard to sufficiency of sample, taking bloody sample, presence of infection and premalignant or malignant condition.

Result: Specimen adequacy and smear quality significantly were better in liquid base sampling test ($p=0.03$), Presence of benign cellular changes was not difference between two groups ($p=0.389$). Diagnosis of bacterial vaginosis was significantly better in conventional method ($P=0.007$). Also, severe inflammation was more reported in conventional method than liquid base sampling test ($p=0.029$)

Conclusion:

Specimen adequacy and diagnosis of inflammatory reaction were better in liquid base smear and convention smear, respectively.

Key words: Pap smear, Liquid base, Conventional