**Table 1**. Description and sample adequacy of the study groups

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Group | n | Needle size | Sampling technique | OCA | Sample adequacy\* |
| I | 50 | 22 G | Aspiration | No | 44 (88.0 %) |
| II | 50 | 27 G | Aspiration | No | 44 (88 .0%) |
| III | 50 | 22 G | Capillary | No | 47 (94.0 %) |
| IV | 50 | 27 G | Capillary | No | 48 (96.0 %) |
| V | 50 | 22 G | Aspiration | Yes | 48 (96.0%) |
| VI | 50 | 27 G | Aspiration | Yes | 47 (94.0 %) |
| VII | 50 | 22 G | Capillary | Yes | 50 (100.0%) |
| VIII | 50 | 27 G | Capillary | Yes | 49 (98.0%) |
| Overall | 400 |  |  |  | 377 (94.3%) |
| G: gauge, OCA: onsite cytologic analysis  Chi-square test, p=0.054 | | | | | |

**Table 2**. Adequacy rates of methodology sub-groups

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Entire group (n=400) | | Solid nodules only (n=205) | |
|  | Adequacy rate (%) | P\* | Adequacy rate (%) | P\* |
| **Biopsy technique** | | |  |  |
| Aspiration | 91.5 | 0.032 | 89.7 | 0.008 |
| Capillary | 97.0 |  | 98.9 |  |
| **Needle size** | | |  |  |
| 22 gauge | 94.5 | 0.830 | 94.2 | 0.733 |
| 27 gauge | 94.0 |  | 93.1 |  |
| **On-site cytological analysis** | | |  |  |
| Used | 91.5 | 0.032 | 97.9 | 0.014 |
| Not used | 97.0 |  | 89.6 |  |
| \* Fisher’s exact or chi-square tests | | | | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **OR\*** | **95% CI\*** | | **P** | |  |  | | | | | |  | |  |
| **Onsite cytological analysis** | | | | | |  |  | | | | | |  | |  |
| Not used | reference | |  |  | |  |  | | | | | |  | |  |
| Used |  | |  |  | |  |  | | | | | |  | |  |
| Univariate | 5.62 | 1.21 | 26.01 | 0.027 | |  |  | | | | | |  | |  |
| Multivariate | 5.81 | 1.23 | 27.37 | 0.026 | |  |  | | | | | |  | |  |
| **Needle size** | | | | | |  |  | | | | | |  | |  |
| 27 gauge | reference | |  |  | |  |  | | | | | |  | |  |
| 22 gauge |  | |  |  | |  |  | | | | | |  | |  |
| Univariate | 1.22 | 0.39 | 3.75 | 0.733 | |  |  | | | | | |  | |  |
| Multivariate | 1.02 | 0.32 | 3.30 | 0.973 | |  |  | | | | | |  | |  |
| **Biopsy technique** | | | | | |  |  | | | | | |  | |  |
| Aspiration | reference | |  |  | |  |  | | | | | |  | |  |
| Capillary |  | |  |  | |  |  | | | | | |  | |  |
| Univariate | 9.94 | 1.27 | 77.99 | 0.029 | |  |  | | | | | |  | |  |
| Multivariate | 10.28 | 1.30 | 81.47 | 0.027 | |  |  | | | | | |  | |  |
|  |  |  |  |  | |  |  | | | | | |  | |  |
|  |  |  |  |  | | **0.05** | |  |  |  | | **1** | | **20** | | |
|  |  |  |  |  | **Decreased sample adequacy** | | | | | | **Increased sample adequacy** | | | | | |

Figure 1. Odds ratios of selected parameters for sample adequacy rate in solid nodules (results of univariate and multivariate logistic regression) (n=205)

\* 95% CI= lower and upper boundaries of 95% confidence interval of odds ratio, OR= odds ratio