Aim: The aim of retrospective analysis is to present the turnaround times for immunocytochemistry (ITAT) and referral to molecular EGFR testing (MTAT) in our cytology division. Methods: ITAT is a working day period between the samples receipt and final result reports of lung carcinomas subtyping by immunocytochemistry (ICC). MTAT is a working day period between the samples receipt and referral to dislocated molecular laboratory to EGFR testing. May Grünwald Giemsa (MGG) slides with the minimum of 30 % cells and/or more than 200 cells of non small cell lung cancer (NSCLC) classified (with or without ICC) as adenocarcinoma and not otherwise specified (NSCLC-NOS) were send to EGFR testing two times a week. Original records of 367 ICC reports and 442 referrals to EGFR testing during one year period were analysed. ICC was performed on 270 malignant bronchoscopic samples (BS) and 97 fine needle aspirations of peripheral lesions and fine needle percutaneus aspirations of transthoracic lesions (FNAs). To EGFR testing were referred 360 BS and 82 FNAs. Results: One to three days ITATs were in 72/270 (26,7%) BS and 59/97 (60,8%) FNAs. Four to six days ITATs were in 143/270 (53,0%) BS and 33/97 (34,0%) FNAs. ITATs of more than seven days were in 55/270 (20,4%) BS and 5/97 (5,2%) FNAs. Three to five days MTATs were in 129/360 (35,8%) BS and 68/82 (83,0%) FNAs. Six to eight days MTATs were in 147/360 (40,8%) BS and 9/82 (11,0%) FNAs. MTATs were more than 10 days in 84/360 (23,3%) BS and 5/82 (6,1%) FNAs. The mean ITAT was 4,8 for BS and 4,7 for FNAs. The mean MTAT was 7,8 for BS and 4,9 for FNAs. Conclusion: Mean turnaround time for immunocytochemistry (ITAT) is the same for bronchoscopic samples and
FNAs. Mean turnaround time for molecular analysis referral (MTAT) is shorter for FNAs than bronchoscopic samples, but both TATs are still in recommended interval.