Scenarios and roles of laboratory medicine at the crisis time: Strategizing, organization and management

Margherita Morandini
Pordenone Hospital, Italy

In laboratory medicine, organizational and technological innovation are strictly binding together but the generation of organizational innovation is not simply a technology driven one, because of the increasing role of patient-centered laboratory concept in designing contemporary clinical laboratory. Moreover, the innovation in Laboratory Medicine organization must move along the basic axis of asset management (operational level and reorganization), knowledge management (new competences and roles) and disease management (effectiveness, appropriateness and translational medicine). The basis of organizational innovation in laboratory medicine are the modern concept of innovative organization from Mintzberg, the evolutionary theory of quality from PDSA to six sigma and lean and the theories of people role in strategizing from Jens Dahlgaard to Paula Jarzabkowski. Therefore, in the present scenario of hard transformation of the Laboratory Medicine, the “manager” role is not simply managing the preexistent structures and processes, but strategizing, organizing and managing structures, workforce, processes, outcomes and perspectives of the laboratory, based on the general mission and vision of Laboratory Medicine as discipline (information and consultation) and of the individual laboratory, on the evidence-based laboratory medicine method, on the “new” focus of Laboratory Medicine (the patient), and open to the future. For Laboratory Medicine, strategizing is thinking and building the laboratories around the patient need, step-by-step from information system to the analytic system, by dynamic stability or disruptive innovation depending on social, political and cultural conditions. The organization is based on a shared and coordinated work of an interdisciplinary and inter-professional team, unified by its mission and the leadership. Today, the “manager” role is one of main duty of the leader, as cultural transformer, supported by his/her 7 Cs (moral compass, compassion, contribution, commitment, communication, collaboration and creativity).

margherita.morandini@gmail.com

KRAS mutation in lung metastases from colorectal cancer: Prognostic implications

Michele Ghidini1, 2
1Humanitas Research Hospital, Italy
2Azienda Istituti Ospitalieri di Cremona, Italy

Background: KRAS mutant colorectal cancer (CRC) patients develop lung and brain metastases more frequently than KRAS wild-type (WT) counterpart.

Methods: We retrospectively investigated the prognostic role of KRAS, BRAF, PIK3CA (exon 20) mutations and loss of PTen in surgically resected lung metastases. Lung specimens from 75 metastatic CRC (mCRC) patients treated with one or more metastasectomies were analyzed.

Results: 64% of patients had KRAS WT lung metastases. PTen loss-of-function was found in 75%. BRAF and PIK3CA exon 20 mutations were not found. Seven patients developed brain metastases and 43% of them had KRAS mutation. In univariate analysis, median overall survival (OS) for KRAS WT patients was longer compared to KRAS mutant patients (median 60.9 vs. 36.6 months, P=0.035). In addition, both progression-free survival (PFS) and lung disease-free survival (LDFS) between lung surgery and relapse were not associated with KRAS and PTen status. In multivariate analysis, the risk of death was significantly increased by KRAS mutational status (OS Hazard ratio (HR) 2.17, 95% IC 1.19-3.96, P=0.012) and lack of adjuvant chemotherapy (OS HR 0.10, 95% IC 0.01-0.74, P=0.024). The proportion of KRAS mutations in lung metastases was similar to the expected proportion in primary tumors.

Conclusion: Patients harboring KRAS mutation had a poorer survival rate compared to WT group. Moreover, administration of adjuvant chemotherapy after lung metastasectomy (LM) significantly improved both PFS and OS. KRAS mutation is a negative prognostic factor in mCRC patients undergoing LM. Further studies are necessary to confirm these findings.

mghido@hotmail.it