Proceedings

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EVOLUTION AND REVOLUTION IN CONTEMPORARY PATHOLOGY

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Introduction/Background
Cloud Pathology Group participated in the XI European Congress on Telepathology presenting the results of its great “in vitro research” about the use of HTS scanners in surgical pathology and in the XII European Congress on Digital Pathology presenting the preliminary results of its “in vivo research” done at the Busto Arsizio Multihospital Pathology Department, ended on June 30, 2015.

Aims
The aim of this abstract is to complete the Paris presentation and to highlight the conclusions of the three years and a half research work on the application of digital pathology in surgical activities. These conclusions became the base of the CPG software prototype (digital suite) put on the market by the Company.

Methods
The methods applied during the “in vitro research” and the “in vivo research” were described in 2012 and 2014 presentations. Afterwards, the work done consists in
• defining of specific tests to be executed on surgical specific diagnoses,
• defining the expected results of the tests,
• tests execution and validation of results,
• comparing expected and effective results,
• defining an evaluating the deviations
• defining how to proceed further.
This Loup method was applied n times until a definite specific conclusion was found.

Results
There is no evidence that digital diagnoses present more risks than the microscopes’ ones. The costs per diagnosis increase due to new investments and new running costs, however the level of the increase depends on the organizational model adopted. The higher is the volume of the slides treated, the lower are the costs per diagnosis. The higher is the standardization of the slides that the Laboratory produces, the higher is the accuracy of the diagnosis. The greater is the number of the pathologists involved in the network entitled to a diagnosis, the higher is the accuracy of the diagnosis (side effect of the specialization). The second opinion solution is a slow process; it is better to produce the diagnosis by involving more pathologists in the same process in the same time (collaborative diagnosis). The Data Base on work’ tracking is the main requirement for the quality control procedure, for the evaluation process of the professional skills and for the work assignments. The electronic repository of the images instead of the physical stock of slides cuts relevant costs. The organization of Data Base, its flexibility and its multi-proprietary approach are the keys of the quality of the entire solution. At all, digital pathology is a total change process. The fundamentals of its success are:
• clear comprehension of the organizational effects to be put on place,
• massive educational programs on new technologies and on change management, for pathologist, technicians and therapists,
• strong change management assistance,
coherent behaviour in all people involved.