20 - Histological prediction of colorectal polyps by Narrow Band Imaging (NBI): a single center experience

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Introduction: The use of Narrow Band Imaging (NBI) technology for in vivo histological prediction of colorectal polyps presents high accuracy in Referral Centers, particularly for diminutive polyps, which could be managed by the “resect and discard” strategy and, for sigmoid and rectum polyps, the “diagnose and disregard” strategy. However, the applicability of this practice in Community Hospitals still needs to be determined.
Aims: To determine the accuracy of NBI in predicting histology, according to NICE and WASP classifications, in a Center without previous NBI experience.

Methods: Prospective study including patients submitted to colonoscopy between June 2016 and August 2017. Polyps characteristics: location, size, morphology (Paris Classification), NICE/WASP classification (hyperplastic, sessile serreated, adenoma, invasive carcinoma) and degree of confidence (low:< 90% vs high≥90%). Comparison between NBI classification and histology.

Results: 325 polyps included (147 patients); mean polyp dimension of 6.2mm (58.5% ≤5mm); 88.6% sessile polyps; 61.5% on the left colon. Polyps classification according to NICE/WASP vs. histology: hyperplastic 44 vs. 37.5%; sessile serrated polyps 4 vs 10.5%; adenoma 50.5 vs. 49.5%; carcinoma 1.5 vs. 0%; inflammatory reaction on histology - 3.7%. Adenoma diagnosis using NICE/WASP classification presents an accuracy, sensitivity, specificity, positive predictive value and negative predictive value of 78.4%, 77.4%,80%, 85.3% and 77.1%, respectively. For left rectosigmoid polyps ≤5mm classified with high confidence level (n=84) the accuracy and negative predictive value were of 85.7% and 87.6%, respectively. Multivariate analysis showed that high confidence prediction and ≥3 polyps/exam had a significant association with correct NBI classification (p< 0.05).

Conclusions: Despite promising, NBI utilization by inexperienced endoscopists did not reach the accuracy and confidence levels recommended in the literature. As so, our results reinforce the need for additional training and monitoring.