

## THE PREDICTIVE VALUE OF THE NICE GUIDELINE SYMPTOMS FOR RECTAL BIOPSY IN CHILDREN

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**Aim:** To assess our department's use of rectal biopsies for the diagnosis of Hirschsprung's Disease (HD), against the NICE guidelines (NICE, 2010) and derive the predictive value of these guideline symptoms.

**Methods:** Retrospective review of the last 200 rectal biopsies performed at our institution for the diagnosis of HD. Patient records and our histology database were used to determine indication for biopsy and biopsy results.

**Results:** 200 consecutive patients had rectal biopsies between 2014 and 2016. 109 were female and there were 36 neonates. Biopsies were successful in 93% (186/200) with 7% (14/200) being inadequate samples which were repeated. There were no complications recorded. 14% (28/200) had HD; of these 23 were neonates. 70% (141/200) of our biopsies were not compliant with NICE guidelines, the main indication being chronic constipation and of these only three patients had HD.

Three indications represented 89% (25/28) of the positive biopsies: failure to pass meconium (12/28), chronic constipation from the first few weeks of life (8/28) and chronic distension/vomiting (9/28). These three symptoms had a positive predictive value of 36.36% (95% CI 24.13% to 50.66%), 57.14% (95% CI 33.35% to 78.04%) and 36.00% (95% CI 21.62% to 53.42%) respectively (see table) and all had low sensitivity.

**Conclusions:** Three indications: failure to pass meconium, chronic constipation from the first few weeks of life and chronic distension/vomiting had the highest PPV of all symptoms (while still low) and all have a low sensitivity. Family history and failure to thrive had very low PPV and sensitivities; being much less useful symptoms. We recommend all patients with these three symptoms should have a rectal biopsy. Chronic constipation alone is not a strong indication for rectal biopsy and should be undertaken with caution.