07

INTUSSUSCEPTION AND ROTAVIRUS VACCINE: INCREASED AWARENESS, INCREASED DEMAND?

Jessica Ng[1], Nicholas Edwards[1], Niki Solesbury[3], Kaye Platt[2], Alex Lee[1]
[1]Department of Paediatric Surgery, Children's Hospital, Oxford University Hospitals NHS Foundation Trust, Oxford, UK, [2]Department of Paediatric Radiology, Children's Hospital, Oxford University Hospitals NHS Foundation Trust, Oxford, UK, [3]Information Department, Oxford University Hospitals NHS Foundation Trust, Oxford, UK

Aims: Ultrasound scan (USS) is the gold standard diagnostic test for intussusception. The rare association between rotavirus vaccine and risk of intussusception has been widely publicised. The aim was to evaluate whether USS referral pattern and outcomes have changed following the introduction of the rotavirus vaccine in the UK vaccination schedule in July 2013.

Methods: The USS referral pattern was determined by retrospective review of USS performed for suspected intussusception during the 2-year periods pre- and post-vaccine introduction. USS referral for pyloric stenosis for the same period was used for comparison. USS of patients with previous intussusception and repeat USS during the same admission were excluded. Data collection included patient demographics and outcome measures (air enema reduction, surgical intervention and bowel resection). Statistical analysis included Fisher's exact test ($P<0.05$ significant).

Results: 220 USS events were analysed following the exclusion criteria (median age 14 months, 64% males) – 93 pre-vaccine vs. 127 post-vaccine period (37% increase). In comparison, the number of USS looking for pyloric stenosis has remained relatively static (59 pre-vaccine vs. 62 post-vaccine period) (Figure 1).

Of these USS events, 36 patients had intussusception (median 9 months, 69% males). The rate of positive USS detection pre- and post-vaccine period was 12/93 (13%) and 24/127 (20%) respectively; P=0.15.

We compared outcomes pre- and post-vaccine period, respectively:
• Successful air enema reduction: 9/12 (75%) vs. 15/23 (65%);P=0.71
• Frequency of surgery: 3/12 (25%) vs. 9/24 (38%);P=0.71
• Frequency of bowel resection: 2/12 (17%) vs. 2/24 (8%);P=0.59

Conclusion: Since the introduction of the rotavirus vaccine more USS are performed to investigate suspected intussusception. However, the rate at which intussusception is detected and patient outcomes have not changed significantly. If this increased demand persists, optimisation and allocation of resources via a clear strategy is required at our centre and may apply nationally.

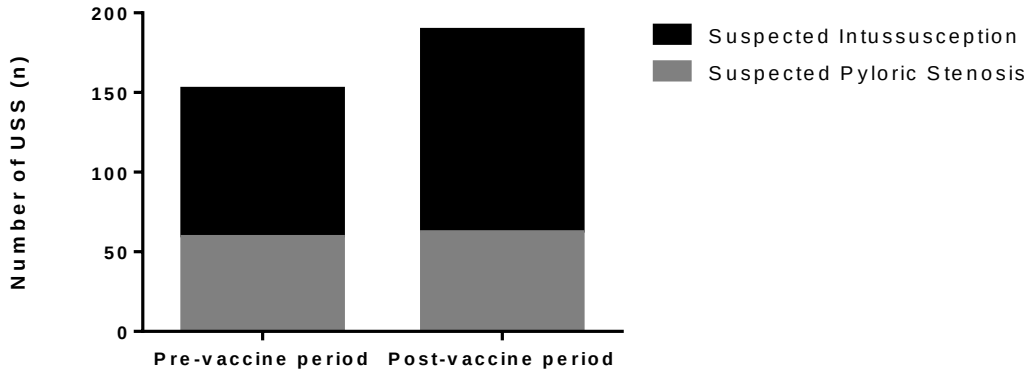

Figure 1. Number of USS during the 2-year periods pre- and post-introduction of rotavirus vaccine